A Lecture
ON
PRACTICAL POINTS IN THE HYGIENE OF SHIPS AND QUARANTINE.

Delivered before the Shipmasters' Society, London, on April 20th, 1894,

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GENTLEMEN,—It is my duty, in the first place, to thank you for the honour conferred upon me by asking me to read before so distinguished and practical a society a paper on Hygiene on Board Ship. For the subject matter of this short lecture I feel that no apology is necessary. One has only to remember that the merchant navy of this country numbers no fewer than 250,000 persons, and that the majority of these are entirely dependent for health supervision for a considerable portion of their lives upon those who stand *in loco parentis*—viz., the masters of vessels—to realise how important this matter must be. It will be impossible to do more than touch upon some of the principal questions which affect the health of "Sailor Jack," and to take these in regular order. The subject being large, and the time at our disposal short, I propose to deal mainly with questions affecting the health of the crew, leaving almost entirely the important points of passenger accommodation and arrangements for emigrants. The same laws which affect health on shore naturally obtain afloat, though they are greatly modified by the special conditions. Thus a ship, like a house, has its own system of drainage, its own water-supply, and its inhabitants for whom the ordinary wants of life must be supplied. While from the fact of the constant breathing of fresh air a sailor's life should be, if not a happy, at any rate a healthy one, it is only too easy to counteract this by improper accommodation within the limits of the vessel itself. For instance, it is a well-known law that both the death-rate and sickness rate are in direct proportion to the density of the population upon a given area, and thus a vessel with an overcrowded forecastle may be in an unhealthy condition even in the midst of the ocean.

THE BILGE.

The first point for consideration in the health of a ship should be her bilges. Into these there is a constant passage of water containing putrescible organic matter, which, collecting and becoming mixed with a certain amount of salt water, rapidly decomposes and tends to seriously affect the health of all on board. Not only have these products of decomposition a generally unhealthy effect, but there is no doubt as to the conveyance of certain definite diseases, especially cholera, yellow fever, and malarial fevers. In steamers the waste of oil from the engines tends to render the bilge water most offensive. If it were possible to keep the bilge perfectly dry, this would be the most healthy arrangement; but this is impracticable, and, therefore, it should be regularly pumped dry and a certain amount of clean water added. As offensive matter must collect, a certain quantity of water is required to wash this off. Whenever a vessel is disinfected on account of infectious disease the bilge should be thoroughly washed with a disinfectant solution and afterwards pumped out. The bilge-pumps should be arranged so as to be capable of emptying *all* the water in the bilge.

THE FORECASTLE.

Sailors are berthed either in forecastles or deck houses. The lower forecastle, which, if it exists at all, should be allowed only in the smallest vessels, is a most unsatisfactory lodging, and one which it is scarcely possible to keep in a sanitary condition. The top-gallant forecastle is far preferable, but the ideal accommodation is undoubtedly the deck house, for reasons which we shall presently see. The Merchant Shipping Act of 1854, amended by the 1867 and other subsequent Acts, requires that every European seaman shall have a space of at least seventy-two cubic feet, and that such space shall be entirely free from stores &c. Of late years there has been a continuous tendency to improve the condition of the sailor's forecastle, and it is well known that the more comfortable and cleanly these can be kept the more contented and happy men are, the longer they will remain in the ship, and the more work can be got out of them. It is clearly, therefore, the interest of both owners and masters to see that the accommodation provided for the crew is the best possible under the circumstances. Firstly, the minimum cubic space provided by the law is too small, and if strictly adhered to men cannot possibly live in perfect health. Fortunately, it is a very rare thing to find the bare amount of space required by law, but there are a certain number of vessels on which the minimum only is provided, and one cannot but feel that the time has arrived when this allowance should be largely increased, say to not less than 100 cubic feet per head. If the height of the forecastle were six feet, this would allow 16 square feet for each man, which would prove a fairly reasonable allowance. In old sailing ships it is still not uncommon to find the crew occupying a forecastle in which it is quite impossible for a man to stand upright. Another drawback to the lower forecastle is that from its triangular shape the extreme fore-end is practically wasted, or utilised only for lockers containing stores (which should be carried elsewhere on the ship) and can never be properly ventilated or lighted. There can be no doubt as to the great advantages to be derived from carrying crews in houses on deck, where lighting and ventilating become comparatively simple matters. Even on sma'l sailing-vessels it is found that the erection of deck-houses does not materially interfere with the working of the ship. The sides of the forecastle in iron ships are frequently covered with fixed wooden lining, which serves as a resting-place for filth and vermin. Some protection is absolutely necessary on account of the condensation due to change of temperature, and the simplest and best plan of dealing with the bare iron is to coat it with finely granulated cork. The iron is coated with thick varnish, and finely granulated cork is dusted on. When thoroughly dry the excess can be easily removed. This can always be kept clean and painted, allows the iron to be inspected from time to time, and prevents condensation. The under surface of the deck, especially over the bunks, should be treated in the same way. There is no more fruitful source of complaint than the wetting of berths and bedding from condensation from iron decks in badly ventilated and warmed forecastles. Where sweat-boards are used it is not uncommon to find them covering only the deck exactly over the berth, without due provision for the altered relative position when the vessel is rolling. The Board of Trade regulations do not require the deck to be lined over the bunks where it is sheathed above. This sheathing does to some extent prevent condensation, but not thoroughly, and the practice of leaving the under surface of the deck unprotected by some insulating material undoubtedly constitutes a nuisance injurious to health within the meaning of the Public Health Act. The bunks should be arranged so as to leave a clear space between them and the ship's side. This space should be sufficiently wide for a man to pass round for the purpose of cleaning, painting, &c., a passage way being left abaft the bunk furthest aft. The bunks themselves would be more easily cleaned and more economically kept in repair if they were constructed of iron and painted white or light stone colour. They should be not less than 6 ft. 2 in. by 2 ft., and should be arranged in two tiers only. The distance between each tier and between the upper tier and the deck should be not less than 2 ft. 6 in. The bottom of the lower bunk should be at least 12 in. above the floor level, so as to allow of thorough cleansing underneath. Where, as is so frequently the case, there is a space of a few inches only, all dirt and refuse can easily collect, but cannot possibly be removed. In wooden bunks it is usual to construct the bottoms of a number of boards (usually eight) about 9 in. wide, which are supported at their ends by battens nailed to the side boards. These separate pieces afford lodgment for dirt and vermin and when removed for cleaning or painting are frequently lost or misused, their place being supplied by rough wood, such as lids of boxes, &c. The best plan is to fit the lower bunk with an open iron bottom as used in an ordinary bedstead, or even with a wire-wove mattress, but the upper one must have a solid bottom to prevent dirt and dust falling through on to the man below. This is best constructed of two sections, each section being built up of properly tongued and grooved thwart-ship boards fastened by longitudinal battens. There will then be but little temptation for men to make use of them for lighting fires &c. In all forecastles and cabins there should be a well-laid, solid, caulked deck, without any spaces through which dirt and

water can pass. It is a common practice, especially in iron steamers, to save expense by placing bearers at a certain distance apart and fixing planks to these. These are thin and often badly tongued and laid; filth accumulates in the spaces between the bearers, which cannot be cleaned, and the result is a collection of decomposing organic material, which must undoubtedly have a deleterious effect upon health. If a solid deck be laid permanently, extending to the edge of a well-constructed waterway, which is efficiently drained by trapped scuppers, placed in such a position that they can readily be seen and cleaned, one fruitful source of disease is undoubtedly got rid of. The drainage from the forecastle usually passes through a closet or privy on to the main-deck waterway. In this case the passage through such closet should be by means of a pipe scupper, so that no effluvium can pass directly into the sleeping quarters.

VENTILATION.

Ventilation is one of the most important points to be considered, and oft-times one of the most difficult to satisfactorily arrange. In the best forecastle the amount of breathing space is distinctly limited. A healthy adult requires at least 3000 cubic feet of air per hour, and although the freest ventilation will not compensate for a deficiency of cubic space it will greatly tend to diminish its ill-effects. Two sufficient openings at least are required into each compartment. Where a forecastle is divided by a fore-and-aft bulkhead a space of at least twelve inches should be left open at the top, so that air can pass freely from one side to the other. In addition to scuttles, which cannot always be opened, on account of weather, an opening should be provided on either side at least 12 in. in diameter, and a stout wrought-iron ventilating shaft carried up through the top-gallant forecastle deck at least 2 ft., terminating in a proper cowl to prevent the entrance of water. Mushroom ventilators may be used, but the screws are liable to rust and become jammed, and it must further be borne in mind that the opening is usually much less than the sectional area of the tube. They are therefore less safe and less efficient than good cowls. The importance of thorough lighting in crews' quarters is not fully realised. The old Italian proverb says: "Where the sun shines the doctor cannot live"; and while, happily, this is not absolutely true, it is undoubtedly the fact that in a forecastle, as in most other places, absence of light means presence of dirt. Scuttles should be so arranged as to allow light to pass unimpeded by bunks or lockers to every part of the forecastle. If practicable the bunks should not be placed along the side of the vessel, where they must, to a certain extent, interfere with the entrance of light. If this can be left clear it might be utilised for the purpose of fixing a table, so that the men could take their meals decently. Much obviously, however, must depend upon the space at disposal. In practice it is found that where ample light is provided men will naturally take a pride in keeping their place clean, and where it is dark the reverse is almost invariably the case. The amount of light may be greatly increased by bevelling off the edges of the scuttles and the judicious use of white or light-coloured paint. Scuttles should be freely provided, and, in addition, deck-lights are often useful. The fore-scuttles should be provided with efficient guards to prevent damage from anchor &c. When a scuttle has been once injured there is a natural objection to replace it, and thus the original absence of some protection frequently leads to a permanent closing and loss of light.

HEATING.

The majority of stoves in use in ships are of an antiquated, costly, and dangerous description. The usual bogy is a small, square stove constructed of thin cast-iron, with a movable cover. Its disadvantages are that it requires constant attention to keep up a fire, and that therefore it is usually seen either full of fuel with a roaring fire with the iron at a red heat, or choked with cinders and the fire in a dying condition. The cast-iron when heated allows the products of combustion to pass freely through its substance and hence the air of the forecastle is rapidly poisoned. In addition to this the iron usually cracks the first time it is so heated, and most owners of vessels are painfully aware of the constant need for renewal. The shape itself is a mistake, the angles being always liable to injury from blows. The coal consumption is very large, and the danger from fire by no means inconsiderable, while the large amount of clinker and cinder tends to keep the forecastle dirty and untidy. To keep up a fire it is found necessary to remove the top for feeding, and hence this never fits tightly, and is frequently missing. One of the rarest sights on board a ship in the port of London is a bogy stove in perfect condition. The best and most economical stove is a well-constructed circular wrought-iron slow combustion one, lined with fire clay. A steady heat is easily maintained with a small consumption of coal and perfect safety, and the stove will outlast a score of the old-fashioned bogy ones. The flue should be of stout iron connected to the stove by means of a curved pipe. Whenever a right-angled connexion is made the flue is rapidly corroded. The funnel should run up through a properly constructed flange fitted to the deck and terminate in a cowl so arranged as to prevent down draught or influx of water. If at any time during hot weather the stove and piping be removed from the forecastle the cowl should remain to act as a ventilator. There is no reason why the heated current of air passing up the funnel should not be utilised for the removal of foul air. All that is necessary is to carry it up through the centre of the ordinary ventilator and allow the smoke &c. to escape at a higher level. The effect of this will be to heat the air in the ventilator and so cause a considerably increased velocity in the upward current. The fore-peak generally is a source of nuisance. Placed in the fore-end of the forecastle, through which alone entry is gained to it, everything has to be carried through the men's quarters, leading to general uncleanliness. The hatch rarely fits tightly, in spite of the Board of Trade regulation, which requires it to be fastened down on to a ring of rubber or other elastic material, and hence any effluvium passes readily into the crew space. Where there is sufficient beam for the purpose the forecastles should be separated by a passageway leading to the fore-peak hatch, and any spare space so left might well be utilised as a store for oilskins or wet clothing, which it is obviously desirable to keep, so far as possible, out of the forecastle. Where the beam of the vessel will not admit of this arrangement the hatch should be in the middle line and a corresponding hatch provided in the topgallant deck. These two hatches should be connected by means of a well-built wooden casing. A tightly fitting door should be provided in the sailors' forecastle for use in bad weather. Under no circumstances should a steam windlass or other gear be allowed to remain in a forecastle. The heat and moisture at once render the place unhealthy, and there is in addition the danger from bursting of steam-pipes. Wherever cables pass through forecastles they should be thoroughly cased in, best of all by means of airtight wrought-iron tubes. These will prevent dirt brought up by the chains being scattered about the place, and, further, will prevent any foul odours from the chain locker escaping into the space occupied by the men. Proper provision should be made to enable men to keep themselves clean. There is no need for any elaborate arrangement, and there are few vessels of any size where space cannot be spared for a reasonable lavatory and bathroom, while there is abundant evidence to show that seamen greatly appreciate and make good use of such accommodation. A comparatively small space will provide all that is required. The floor should be covered with sheet lead, carried up the side for a short distance and properly drained. Water can be easily supplied by means of a tap, and in steamers there should be no difficulty in arranging for a hot supply. A few basins can be easily fixed, with galvanised iron buckets or trays provided, for the purpose of washing clothes. A galvanised iron bath of sufficient size and depth should be provided. It is not necessary that this should be of sufficient length for a man to lie down, as thorough cleansing can be carried out in a squatting position if the bath be deep enough for the purpose. As a general principle, everything provided for the use of seamen should be of the simplest and strongest description possible. A sailor is not accustomed to deal with elaborate appliances, but he certainly is not altogether beyond the pale of civilisation, and there is a strongly—and rightly, strongly—growing feeling that he has too long been badly treated with regard to sanitary arrangements. While it is impossible to sympathise with the tyranny of the apostles of advanced trades unionism, who apparently are fain to reverse the positions of master and servant, there can be no doubt as to not only the reasonableness but also the strength of the platform which urges the importance of some reform in this direction. It seems, therefore, the right course not to wait until the provision of these necessities is forced upon us, but rather to disarm the attack by meeting the undoubted

want early. Closets also should be of the simplest description, inasmuch as any complex machinery must break down when used by the ordinary seaman. They should be provided on every vessel, and in the case of steamers can always be furnished with an efficient water flush. When lying in dock the usual regulation is that the closets should be cleaned and kept fastened, the crew, if remaining on board, going on shore for accommodation. Every master who has due regard for the sanitary condition of his ship will take good care that this rule is duly complied with. The floor of the closet should be thoroughly cemented, the surface being finished with a good fall outwards and covered with a coating of tar. The structure should be of sufficient size for a man to stand upright in and should be provided with ample light. Ventilation must be carefully attended to. It is wellnigh impossible to have too much. A louvred panel, a large butterfly, or even simple holes will suffice for the door. A scuttle outboard, and some opening in the after-side, should be sufficient in most cases. The best form of apparatus is a short hopper made of galvanised iron attached to an iron soil-pipe, the apparatus being open to the air underneath. If the seat be made to lift up the closet may be used as a urinal, thus obviating the necessity for what is always a source of trouble on board ship. The closets should be near the men's quarters, but not so close as to cause any nuisance. Where a closet actually adjoins a forecastle the bulkhead, if wooden, should be doubled with a layer of felt between the two thicknesses and extra ventilation arranged for. On every vessel of any size some special arrangement should be made for a hospital. The position will vary according to circumstances, but all that is necessary is a well-ventilated isolated structure fitted with an iron bedstead, washhand-stand, and seat. This is available for any accident or case of illness where a patient requires to be kept quiet or in the event of infectious disease. It is often, in the absence of a hospital, very difficult to provide for the safety of the crew when any infectious disease breaks out, and the provision of such means of isolation cannot be too strongly insisted upon. The disposal of refuse on board ship is a simple matter. All waste food and dirt are thrown overboard at sea, and in dock should be collected in a tub or bucket and taken ashore after each meal to the dustbins provided for this purpose. The sewage from the closets passes directly overboard, and the only requirement is a storm-valve closing with pressure from without so as to prevent the possibility of flooding or the washing back of the sewage.

CLEANSING.

In all our best-kept vessels a periodical inspection is made by the officers of the ship of the quarters occupied by the crew in order to ensure their being kept thoroughly clean, and this rule should be strictly carried out. The commonest fault is to employ water too frequently and in unnecessarily large quantities. Thorough scrubbing and cleansing can be effectively carried out without the use of large quantities of water, which very often by accumulation charged with organic matter in out-of-the-way corners are productive of more trouble than the original dirt. Great care should be taken to see that all superfluous water is got rid of and that the forecastle is dried as quickly as possible; in wet or damp weather dry scrubbing should always be resorted to. "A damp ship is an unhealthy ship." This may be accepted as an axiom, the truth of which has been constantly demonstrated. Air is dry or moist not in proportion to the actual amount of water it contains, but according as it is more or less removed from saturation. This degree of saturation is termed relative humidity. The normal amount of moisture exhaled by an adult is more than sufficient to render the cubic space provided saturated without any additional means. Apart from the pernicious effects of moisture *per se*, it has a powerful influence upon the development and growth of germs of infectious diseases. Simon, in speaking of filth ferments, states: "That they show no power of diffusion in dry air, but as moisture is their normal medium, currents of humid air can doubtless lift them in their full effectiveness." Sir Alexander Armstrong says: "There can be no more fertile source of disease among seamen, or indeed other persons, than the constant inhalation of a damp atmosphere, whether sleeping or waking; but particularly is this influence injurious when the moisture exists between a ship's decks, where it may be at the same time more or less impure, and hot or cold according to circumstances." Bearing these facts in mind, the greatest care should be at all times taken to keep the crew's quarters as dry as possible. It should also be a rule that, whenever the weather will permit, all bedding should be removed from the forecastle and exposed to the action of wind and air for a certain time every day.

FOOD AND COOKING.

The British sailor undoubtedly suffers much from an improper dietary. The usual diet scale is supposed to be prescribed by law, but this is an error. As a matter of fact, the Merchant Shipping Act simply requires that a diet scale shall form part of the agreement, but in no way (except so far as lime juice and sugar are concerned) indicates what such diet scale should be. As a result of this impression there has been in use, with but few alterations, the same diet scale for many years. The chief faults in the present scale are: it is practically unvarying whatever the nature of the voyage, whether this be to northern latitudes or to the tropics, to the east or west. That there is not sufficient variety, and that even now, in spite of the great improvements in packing and preserving fresh meat, too great reliance is placed upon salt meat. The quantity of fresh vegetables, with a little care, might be considerably increased. There is no difficulty in drawing up a far more liberal and varied diet scale without in any way increasing the cost to the owner, and it is scarcely necessary to point out how largely the nature of the food supplied affects not only the health, but also the temper of the men. Moreover, there is good reason to believe that the compulsory issue of lime juice has been not an unmixed benefit. It undoubtedly is a powerful antiscorbutic, and is valuable *ad hoc*, but at the same time with some there has been a feeling that by this law the Government has accepted a certain amount of responsibility, and so far relieved the owner from the necessity of revising the diet scale. While, however, an improved dietary need not increase the cost, there is another very important point, which, if properly dealt with, can only lead to increased economy and actual saving. I refer to cooking. Of late years a considerable amount of attention has been called to the absolute necessity for some proper system of training and certifying cooks on board ships. It is scarcely possible to exaggerate the importance of this responsible personage, holding as he does completely under his sway the stomachs and digestions of all on board. Notwithstanding this responsibility, there is no provision for his training, and, as a general rule, he grows up into the position, learning his art, if it can be so called, by tradition from others possibly more ignorant than himself. There is no reason why a school of ship cookery should not be established at every large port, and a regular course of instruction given to those who are desirous of obtaining billets. After a certain time it might be found advisable to insist that every cook on board a vessel beyond a certain size should be required to attend such a school and obtain a certificate of proficiency. In the meantime, much can be done by such institutions as training ships &c., which are already moving in this direction. Obviously such a regulation would lead to some slight additional cost, but this would be far more than balanced by the economy of food and the improved dietary it would undoubtedly bring about.

WATER.

Although the quantity of water is limited in diet scales, as a matter of fact the seaman is practically allowed as much as he likes. The question of supply except in small sailing vessels is no longer a difficult one, inasmuch as condensation and subsequent aeration can always be resorted to. Storage, however, still requires considerable attention. Wooden casks and receptacles should be altogether abolished except in case of emergency. The alternate wetting and drying of the wood rapidly set up decomposition of the wood, and this being favoured by want of ventilation pollutes the water, rendering it unfit for consumption. Iron tanks, painted outside and cement-washed within, form the most economical and at the same time the most sanitary receptacles. These should be furnished with large manholes for the purpose of cleansing, which should be carried out as a matter of routine after every voyage. If possible the manhole should be placed in such a position that natural light finds its way into every part of the tank when the cover is removed. The source of water is important. In most British ports a good supply can be easily obtained, either from companies' mains or from water-boats. If from the latter, a careful officer will always inspect the water in a barge before allowing it to be delivered on board, and will further insist upon the hose being

washed by the first pumpings before the end be put into the tank. Under no circumstances should water be taken from a wooden water-barge. In foreign ports the water is often of doubtful and in some cases of absolutely harmful quality. A very simple plan of testing the purity of a drinking water so far as organic impurity is concerned is to colour a sample of it a bright pink with Condy's fluid and to watch the effect. If the pink colour be sustained for fifteen or twenty minutes the water may be considered as tolerably safe; if, on the other hand, the colour be discharged or changed to a dirty brown the water is at any rate suspicious, and should certainly be boiled or even distilled before use for drinking or cooking, care being taken to cool and aerate it in the latter case before use.

CLOTHING.

Clothing has a considerable influence upon health, though the shipmaster has practically no control over its nature or supply in the mercantile marine. The sailor's clothing should be mainly composed of woollen material on account of its permeability, non-conducting properties, and hygroscopic qualities.

CABINS AND SALOONS.

The sanitary condition of saloons and cabins is too large a subject to treat of in this short paper, though its importance cannot be overlooked. Between the seaman and any officer, however low his grade, there should be a distinct and decided difference made and maintained, especially with regard to his housing. It is unfortunately often the case on large and well-found steam vessels that the junior officers are even worse off than the men with reference to space. A cabin constructed to accommodate two seamen is utilised for two officers. This is a point which requires attention. Again, officers' cabins are frequently badly ventilated. Situated at the side of an alleyway close to the machinery and stokehold, from which there is always a current of hot air, they really require more thorough ventilation than the forecastles, while as a rule they obtain less. Good large scuttles should be provided, as well as some simple arrangement for ventilation in the door and over the bulkheads. In addition, where possible, and this is nearly always the case, ventilating tubes should be carried through the deck, terminating, according to circumstances, either in cowls or swan necks. Considerable benefit is also derived from a free ventilation of the alleyway, and of the space between the cabins and engine-room &c. As in the forecastle, the deck should be permanently laid and watertight, and the side and deck, if of iron, carefully insulated. It is not uncommon both for passengers and captain to have closet and bathroom placed together. This is a most objectionable arrangement, and except where both are used by one person only it is difficult to conceive any advantage. The discharge pipes should always be separate and distinct to avoid the possibility of the bath being fouled by the washing back of soil from the closet.

ENGINE AND STOKEHOLDS.

In these parts of the vessels the heat may be excessive. In a properly ventilated stokehold this should not be the case. If sufficient air be supplied for the combustion of the furnaces there will be a constant and rapid current, and the atmosphere is often purer than in other parts of the ship. Where sufficient air is not supplied, the owner loses by the imperfect use made of the coal. In the Royal Navy, where everything is of necessity protected, and where forced draught is the exception, the question of ventilation becomes a very difficult matter. Engine-rooms and stokeholds should be supplied with air by means of large ventilators carried from above deck and fitted with cowls turned to the wind. In exceptional cases wind-sails will be found of advantage.

QUARANTINE.

As I understand that it is the intention of your society to devote a special evening to the discussion of this important question I need here but briefly refer to it. Quarantine was originally proposed as the then only known method of arresting the spread of disease, the nature and spread of which were unknown, and which, in fact, were looked upon as due to some mysterious influence. It rested upon the traditions of medicine, and with the advance of knowledge of disease has lost all justification for its continuance. In this country, as a protection against disease, it has been proved to be absolutely useless, and, indeed, in some respects absolutely dangerous. It can never be relied upon nor carried out in such a way as to prevent the possibility of disease being imported, while it has been one of the most serious hindrances to commerce which has ever been conceived. As a matter of fact a perfect system of quarantine is unknown, and, as practised, has never prevented the extension of an epidemic. Hence it is that Great Britain has absolutely declared for many years past in favour of a rational system of medical inspection, the detention of the sick, the disinfection and release of the ship, and all persons in good health, and this lead is being steadily followed by other countries. The last great steps in this direction have been taken by the Dresden Conference and the Conference recently held in Paris, both of which will have enormous influence for good. It is true that quarantine is still retained upon our statute book, but this is only for the purpose of avoiding certain disabilities to which our shipping would be subject in countries where the fetish of quarantine is still worshipped. All diseases, except yellow fever and plague, are now in practice dealt with by the port sanitary authority, and it cannot be long before even these two will also pass into their hands. The cost of an imperfect quarantine (for at its best it can only be this) is simply ruinous to the trade of a country, and one-tenth of the money wasted upon this barbarous and antiquated system, if spent upon works of a sanitary character, would have an infinitely great result in the prevention of infectious disease. If there was time it would be an easy matter to expose the absurdities and cruelties practised under the guise of a system of protection, but this must be reserved for a future occasion. I have now only to thank you for a patient hearing to my paper. I know full well how interested you, as a body, are in the important subject of health, and how great is the amount of care and attention you bestow upon those for whose health and welfare you are so largely responsible. While your responsibility is heavy, your knowledge and desire to improve the condition of "Merchant Jack" are fully equal to it. As a result, during the last few years his condition has vastly improved, but you will, I know, admit that there is still, as there always must be in all things mundane, room for still more improvement, and this to a very great extent is in your hands. That this power will be well and wisely used to the utmost of your ability the past sufficiently proves, and I trust that this evening's discussion will do something to help forward the good work. In conclusion, I cannot do better than quote the words of a great authority—Turnbull. To keep a ship healthy (1) keep her dry, (2) keep her clean, (3) avoid cold and excessive fatigue, (4) keep warm in winter, and (5) maintain discipline.

Clinical Lecture

ON

SOME AFFECTIONS OF THE VEINS OF THE UPPER EXTREMITIES.

Delivered at St. George's Hospital Medical School on Feb. 6th, 1894,

BY WILLIAM H. BENNETT, F.R.C.S. ENG.,

SURGEON TO THE HOSPITAL.

GENTLEMEN,—About a week ago one of your fellow students consulted me with regard to some discomfort from which he was suffering in both forearms, which he attributed originally to violent exertion whilst playing football. He had noticed recently that this discomfort was growing and found that the veins along the inner side of each forearm were increasing in size. Upon examination there was no doubt that such was the case, and it was to the existence of the dilated veins that his discomfort was due. The case is rather an interesting one from two or three points of view, and it gives me an opportunity for saying a few words about some conditions of the veins in the upper extremities which give rise to various degrees of discomfort and pain. Certain affections of the veins of the upper limbs are but imperfectly understood—mainly, I believe, because so little reference is made to them in your text-books. Tradition, as you know, dies a very hard death in educational works, and it is, I suppose, on that account that the symptoms arising

from venous dilatation and varicosity in the upper extremities are almost entirely ignored in the books commonly used for examination purposes. Nevertheless these conditions of the veins give rise to symptoms in the upper limbs as they do in the lower. The symptoms, it is true, may be less common and generally less severe, but at the same time they are perfectly distinct, although they are usually ascribed to other causes and are treated accordingly, to the detriment of the patient and not greatly to the credit of the practitioner. It happens that I have had a rather exceptionally large experience in matters of this kind in the course of the past eight or ten years. During that time I have been consulted in private practice by a considerable number of patients suffering distinctly from the effects of either varicosity or dilatation of the veins in the upper limbs. To these conditions, therefore, I wish to call your attention, because I think I may be able to give some useful information, not so much, perhaps, for examination purposes, but from the point of view of practice, which is, I need hardly say, a much more important matter. I have selected for discussion the last sixty cases which I have seen of affections of the veins of the upper limbs, because I can speak precisely of them. Of these sixty cases, eighteen came to me simply for varicose veins—a condition hardly mentioned in the ordinary text-books as existing in the upper limbs. Not only were the veins large and tortuous, but so large and inconvenient were they that the patients came to seek relief from the discomfort which the unnatural veins caused. The other cases, which for my present object are the most interesting, were divided in the following way: twenty-six followed distinctly upon injury; in fourteen cases the veins increased in size spontaneously, apparently without any injury at all; and in two cases I discovered the abnormal veins accidentally whilst I was examining the patient for some other affection; these last two cases therefore are not of much account. The most interesting cases are those which followed upon some kind of injury. You have doubtless noticed that I have used the terms "varicose" and "dilated" veins as distinct expressions; it may be well, therefore, before going further, to state why I have done so. A dilated vein is not necessarily varicose—in other words, varicosity and dilatation are not synonymous terms. A varicose vein is one which is not only large, it is also tortuous and may present at intervals well-marked cystic expansions; its coats are thicker than those of normal veins, but the thickness is not out of proportion to the size of the vessels. An absolutely distinct thing, then, is a varicose vein from a vein which simply becomes dilated from backward blood-pressure or increased tension from any cause. In the eighteen cases of pure varicosity which I have mentioned the condition was very distinct. In one instance varicose veins which had existed the whole of the man's life, at least from his schoolboy days, coursed down the whole length of the right upper limb, from the shoulder to the wrist. He had met with no injury, nor had he suffered any discomfort whatever until a short time before he came to me. Crossing the biceps was a very large tortuous vein which below was joined by some others from the front of the forearm quite as large as my little finger. There was no doubt that this was a case of congenital varicosity. The other instances were not so excessive in degree as that, but still they all presented unmistakable symptoms of real varicosity. In six cases well-marked cysts existed, and in one case the cyst, which had become solid, was only discovered whilst an attempt was being made to remove it, under the impression that it was a fibrous tumour on the inner side of the arm, just above the bend of the elbow. These are cases typical enough of their kind and do not, as a rule, give rise to any trouble—these congenital cases of varicosity—until a certain change occurs in the vessels.

Let us consider for a moment why it is that varicose veins become troublesome—they do not always do so. Why should they give rise to any discomfort at all? You will often see, for instance, two patients, perhaps, who have had varicose veins to the same extent in some part of the body—say in the lower extremities—all their lives. Of course, the veins have grown a little larger as adolescence has come on, as these things always do, but they have given rise to no trouble whatever. One patient will now go through life, until he may be a very old man, without discomfort or trouble of any sort, even though the veins be very large. It is a common thing to see people pass through life with veins like this without suffering any trouble at all. The other patient may at some time suddenly begin to suffer trouble. He may get indications of eczema or perhaps ulcers about the lower part of the affected limbs, or some other sequence of symptoms may arise which plainly indicates that he is suffering from one of the many troubles which sometimes follow upon varicose veins. Now, why is it that in one case trouble arises, whilst in the other it does not? (I am not now speaking of cases of injury; a vein which is injured will naturally become blocked and give rise to pain &c., whether varicose or not, supposing the injury is sufficient.) The essential factor in producing trouble in varicose veins is insufficiency of the valves; the moment the valves in a large vein become insufficient discomfort follows. This leads me to another point, which is not always understood. A varicose vein, as I have already said, is, excepting in its size, its tortuosity, and its irregularity, quite like other veins; the extra size involves an extra thickness of the coat, exactly in proportion to the size of the vein. But what is of the greatest importance is the fact that the valves in these varicose veins are *originally perfect, and not imperfect*, as you may be led to imagine from what you sometimes read. It is not until the valves become imperfect—"insufficient" is the technical term—that any trouble at all arises, and the reason of this is as follows. The valves in every vein act like buffers to resist sudden or abnormal pressure, in addition to their other functions, with which I am not at present concerned. You will find that in any part of the body where the subcutaneous veins terminate by passing through or near muscles which are constantly being called into violent action, whereby great pressure is thrown on these vessels, or which independently of their relation to muscles are placed in circumstances in which sudden tension is liable to be thrown upon them out of proportion to their apparent strength, a specially strong valve or arrangement of valves is placed at the proximal end of the vein, the point at which the greatest pressure is originally felt. The stop-like action of the valves when perfect protects the distal part of the vein and its tributaries from an excess of tension which would otherwise inevitably produce dilatation with its attendant evils. It would, therefore, naturally be expected that veins or portions of veins in which this excessive pressure is first felt would be protected by some special arrangement of valves. Practically this is so; for example, at the termination of the long saphena in the femoral vein two or three pairs of valves are invariably found, excepting in rare cases where only one very strong and large pair of valves exists. Again, at the bend of the elbow, where the superficial vein or veins join the deep communicating vessel, either one very strong or two or more pairs of valves are found. In the cephalic vein also, at the point where it dips down through the costo-coracoid membrane, a similar arrangement exists. The purpose of the multiple arrangement of valves is clear enough; in the event of the proximal pair giving way from the extreme pressure (being, in fact, "spoilt") the next pair is ready to resist the pressure, and thus, for the time being at least, the vein beyond is saved from the effects of the excessive tension; should the other valves subsequently give way, then dilatation of the whole vein is certain to follow.

At first the vein between the valve which has given way and the valve next lower down only becomes dilated. Soon, however, the column of blood above, acting at a great advantage, causes so much tension of the vein-walls that the valves below give way one after the other, and thus by degrees the whole vessel may become dilated. Although this dilatation undoubtedly affects the proximal portion of the vein first, it often escapes notice because it is so slight, in consequence of the shortness of the column of blood concerned. As the valves throughout the vein become insufficient the unbroken column of blood acts at a greater and greater advantage as it increases in length, the result being that when the whole vein becomes practically valveless the distal portion of the vessel quickly dilates and so produces discomfort. Hence, as a rule, the change in the distal end of the vein is regarded as the beginning of the affection, because it first causes the discomfort which attracts the patient's attention. Dilatation having once started in the distal part of the vessel, rapidly increasing changes in the same direction soon involve it throughout its whole length. The proximal part, in fact, although the first to be affected, is the last to show dilatation in the extreme form. The cause, therefore, of the pain which attacks patients who are about to suffer from the inconvenience of varicose veins is merely commencing dilatation of the vein in consequence of the insufficiency of the valves. In cases of this sort, when the veins are about to become troublesome, the patient begins to describe a sort of pain and discomfort in the veins

themselves, as if they were too full. Now no person whose vein valves are perfect feels any discomfort from overfulness under ordinary circumstances, whether the veins are varicose or not. Directly, however, the valves give way this feeling of fulness comes on, and it is very soon followed by dilatation of the vein, with the pain and other indications of coming trouble. If you have followed me in what I have been saying you are now in a position to understand the practical bearings of some cases which I propose now briefly to relate. They are not only interesting, but important from the point of view of diagnosis and treatment, and they are not, so far as I am aware, dealt with in the ordinary books.

I am going to speak of the class of cases which I said followed upon some obvious injury. The injuries, so far as I could ascertain in the cases I have referred to, or at all events the injury to which the patient originally attributed the discomfort, were the results of lawn tennis, heavy-weight lifting, football, accidental wrenches and sprains whilst rowing, &c. With two exceptions, in which fracture occurred, the injuries were apparently trivial. Two or three cases will be sufficient to illustrate the points under discussion and to lead up to what I wish to say.

CASE 1.—A man twenty-five years old came to me with what is called a "tennis elbow." (I have seen a good deal of the affection called "tennis elbow," and if you will refer to any book which describes this condition you will, I think, find that the cause of the discomfort experienced is almost always attributed either to a sprain of one or other of the muscles about the elbow, to the injury of a nerve, or some lesion of that kind. No mention is made of any interference with the vascular arrangement of the limb to account for the discomfort which is suffered, in any work with which I am acquainted.) This man was in the habit of playing tennis a great deal, and he suffered from the acute discomfort about the elbow and forearm which is characteristic of a certain form of the complaint. The original pain had commenced about three months previously; he had consulted several practitioners and had used all the ordinary liniments, patent and otherwise, that a man could use. He failed to get relief from these applications, and found that medical advice had benefited him in no material way. One day, when he was getting up, he observed what he had never noticed before—viz., that the veins down the side of his forearm seemed to have become very much larger than the corresponding vessels in the opposite limb. He was perfectly certain that the veins were originally the same size, because he was a man who was in the habit of using dumb-bells and other gymnastic appliances, and he was perfectly well acquainted with the ordinary appearance of the various parts of his body; he was also certain that the veins were still increasing in size. I found that there was no doubt about the existence of these large veins; moreover, the only position of the limb which gave him discomfort was that which threw excessive tension on the veins and brought them into great relief. In other words, the only position in which he felt discomfort was that which the arm would assume at the end of making a back-handed stroke; directly he placed his arm in that position one vein especially swelled up to a large size and he felt pain. That appeared to me to be a clear indication that the cause of this patient's discomfort was not the sprain of a muscle or anything of that kind, but that the original injury had led to a valve giving way under extreme pressure, dilatation of the vein following as a necessary consequence, and being accompanied by the pain and discomfort which such a change always produces. That is one fairly typical case. Here is another:—

CASE 2.—A man who is notorious for heavy-weight lifting was trying to raise a weight from the ground. Whilst lying on his back he attempted to raise a heavy weight, placed on the palm of the right hand, above the level of his body. Suddenly something cracked in the upper part of his forearm. The pain was very slight at the time; he took no notice of it, completed the weight-lifting, and thought nothing more of the matter. On the following day he found his arm a little stiff. Still, he thought nothing of it because he was used to having stiffness of this character after great exertion; but for some reason or other this stiffness soon appeared to him to be peculiar, for it did not pass away as he had noticed an ordinary stiffness passes, and so he got a little uneasy. His work was to some extent interfered with, and so he came to me. I found much the same condition as in the other man. He had sprained his arm, had used all the ordinary remedies which people use, and still he obtained no relief. Upon examination the veins on the outer side of the forearm were obviously very much enlarged. They were three or four times the size of those in the opposite limb, and it was only when his limb was placed in such a position that special tension was thrown on these veins that there was any pain at all. If there was any muscular pain it was very small indeed. Here is another case:—

CASE 3.—A sailor, whilst rowing in a heavy sea, lost control of his oar, and in trying to recover himself by seizing the side of the boat severely wrenched his left arm near the elbow. He had been accustomed to that sort of thing, and of course took little notice of it. But for some reason or other this sprain did not get well as other sprains had been in the habit of doing, and he noticed, much to his astonishment, in about a month or six weeks after his accident, that the veins over the whole front and back of his forearm were undoubtedly growing larger and larger—very slowly but still steadily increasing in size; and then he began to notice that in certain positions of the limb he felt great discomfort and great fulness, which, if it lasted long, amounted to actual pain. This man's history, then, is much the same as the history of the other two cases—a sprain followed by dilatations of the veins below the seat of injury.

These are rather interesting cases. The lesion in each was simply what I have described; the exertion, whatever it happened to be when these men originally felt discomfort, threw so much pressure upon certain veins that there is no doubt the valves gave way. The result of this was exactly what I explained to you just now will happen to a vein, whether varicose or natural, when the pressure of the whole column of blood is thrown upon it without the intervention of the buffer-like action of the valves; these veins began to dilate, and with the dilatation came the characteristic pain. The reason that these patients did not get any relief from the ordinary treatment which is commonly adopted for sprains and injuries of that kind was, of course, that the treatment had been directed altogether to a wrong object. The treatment, in fact, had been directed to the getting rid of the effect of a sprained muscle or a sprained nerve, or something of that sort, whereas the symptoms had nothing to do, when I saw the patients, with muscles or with nerves, but simply depended upon this peculiar sort of dilatation of the veins about the limb. The indication was clear enough, and when the cases were treated properly such relief as could be afforded under the circumstances was given at once. At all events, more relief was given than had ever been obtained before, because the treatment was directed to the right end.

These cases are altogether different from cases of varicosity. The patients were persons whose veins were absolutely healthy to begin with, but in consequence of the great exertions pressure was produced of more intensity than the valves could resist, and so they gave way. I need not describe the remaining cases of this class; they all presented similar conditions, and the indications for treatment were clear enough. It may, however, be worth mentioning that one of the patients consulted me because he had been told that the sound limb was wasting, as it had become so much smaller than that on the opposite side, the difference in size being in reality due to general increase of the affected forearm in consequence of the extensive dilatation of the veins in it. The smaller limb was, in other words, quite natural, whilst the affected side had hypertrophied. I only mention this point to show how easy it is for intelligent persons to be deceived in very simple matters if such an elementary point in diagnosis be omitted as a careful general comparison of the opposite limbs. Let us now return to the treatment of the discomforts which arise in cases of the kind under consideration.

It is obvious that in cases of this kind considerable credit is to be got by the practitioner, especially if the treatment by others who have been previously consulted has failed to produce the required end. Once the cause of the symptoms is recognised the treatment is simple enough and is certain to be followed by good. The result may perhaps be not perfect, but it will afford the patient so much relief that he will in the vast majority of cases be quite content. The object in view is to compensate the veins as far as is possible for the loss of the valves (for having become incompetent they are for practical purposes lost). The most simple plan is, of course, to do as you would do in a similar case in the lower extremity—i.e., supply the patient with a well-fitting and rather tight elastic support. In many cases, even

when the dilatation is exaggerated, the relief is so great that nothing more is asked for. Should the relief, however, thus obtainable be inadequate, or the trouble of wearing the appliance be seriously objected to, the only real alternative is operation. In these cases of dilated veins there is no reason for removing considerable lengths of the vessels. It is sufficient to divide the veins between catgut ligatures in several situations. The vessel will thus be cut up into a number of separate segments instead of existing as a long and practically valveless tube; in fact, the result produced will resemble the condition of things existing in a normal vein with its valves shut. This proceeding, so far as I have seen, entirely removes the symptoms and produces a result which leaves little to be desired. The vein operated upon dwindles to something less than its normal size, and the segments into which no tributary comes or into which only very small tributaries open become unobservable; that is the most scientific—and I have no doubt the best—treatment in otherwise healthy individuals, but, as I have said just now, the elastic support is all that is necessary in many cases. The treatment of true varicose veins in the upper limbs is conducted upon the same lines as in the lower extremities. Operations for their removal, however, although less frequently called for, are more radical in effect, since the varicosity is, as a rule, more limited and can therefore be more completely extirpated than is often possible in the leg or thigh.

Before concluding, let me call your attention to the important part which changes in the vein valves take in producing certain discomforts in elderly persons, more especially in the lower extremities. Although there is nothing new to be said on the subject it is worthy of your consideration, because it is not, I think, quite understood by the majority of practitioners. It is a well-known fact that all vein valves tend to become incompetent in old age. Anatomists will tell you that in the majority of subjects over sixty-five, and in some cases earlier, the valves show signs of commencing inadequacy even in those otherwise perfectly sound in health; at seventy or seventy-five years of age the valves in many instances have become so inadequate that for practical purposes the long veins, like the two saphenas, the cephalic, &c., are valveless tubes. Dilatation for the reasons already described follows, and so are produced the dilated veins of old age, which, although called varicose as a rule, are not in the true sense varicose at all, but merely dilated. Apart from valve insufficiency there is in all old subjects a tendency to a certain amount of dilatation of the veins in the extremities in consequence of the loss of muscular support, which the deep vessels normally receive, as the muscles become progressively feeble—this dilatation gives rise in itself to no trouble at all, but the moment the valves become inadequate for their work troubles begin. The symptoms at first amount merely to a sense of fulness of the part, especially towards the end of the day, when a little œdema begins to show itself; later on eczema, generally produced by scratching, follows, and other ills may come. It is important to understand the causes of these symptoms in old persons, as they are so very commonly ascribed to gout or rheumatism. Thus, many aged persons are treated for gout and rheumatism and are sent from the comforts of their homes to undergo a course of "the waters" at a Continental spa when the only treatment required is a little massage and a well made, very light spiral elastic support. There are other interesting and practical points of which time does not permit me now to speak. The questions I have discussed may to some of you appear trivial, but it may, perhaps, be not amiss to remind you, as I have often done before, that it is to a proper appreciation of the importance of some of these so-called "trivial" points, especially when they are directly connected with treatment, that success in practice is generally due.

TESTIMONIAL.—Dr. John Bligh, J.P., of Mount Pleasant, Liverpool, has been the recipient of a testimonial from the Roman Catholic clergy and laity of that city, in acknowledgment of his philanthropic labour and kindly zeal during the past twenty-five years. The testimonial, which was presented last week, consisted of an address, accompanied by a purse containing 300 sovereigns. The testimonial was also stated to be intended to honour, in the person of Dr. Bligh, the Roman Catholic members of a profession which rendered services which were highly appreciated.

THE TREATMENT OF

CHRONIC DISEASES OF THE HEART BY BATHS AND EXERCISES ACCORDING TO THE METHOD OF THE DRS. SCHOTT.

BY WILLIAM BEZLY THORNE, M.D. ST. AND., M.R.C.P. LOND., M.R.C.S. ENG.

THE treatment of chronic diseases of the heart has not hitherto, even in the hands of the most thoughtful and experienced, been rewarded with so great a measure of success as would justify indifference to any new method which gave promise of adding to the resources of the physician. The system which has been elaborated by the brothers August and Theodor Schott, the former of whom has not lived to witness the approval with which the fruit of his labours is now being received, offers more than an additional resource. I hope to show that, of itself, it presents a rational treatment by means of which results can be secured such as have never been obtained by recourse to pharmaceutical remedies even when their influence has been assisted by the most enlightened hygienic and other general precautions. Indeed, it is capable of such wide application and is so certain in its effects that it would not be surprising if it were, before long, accorded a place in the limited ranks of specific remedies. Stokes taught that exercise, under prescribed conditions, is capable of exerting a beneficial influence on a damaged heart. On the other hand, examples are not wanting of hearts that have been dilated, and to that extent either temporarily or permanently damaged, by strains disproportionate to their strength. It has been reserved to the Drs. Schott to devise a system by means of which the forces which are brought to bear upon the heart by bodily exercise, and by certain outward applications in the form of baths, may be regulated in such a way as not only to avoid injury to that organ, but to endow it with such recovery of function and repair of tissue as may constitute it actually or practically sound. The baths most frequently employed in the system under consideration are those of Nauheim, containing about 1½ per cent. of chloride of sodium, with about the same amount per thousand of chloride of calcium, salts of iron, a proportion of natural carbonic acid gas made to vary according to the circumstances of the case, and possessing a natural temperature of from 88° to 95° F. Baths may, however, be artificially prepared to fulfil almost, if not quite, the same therapeutic purpose. Their mineral strength, their duration, and their frequency may all be increased as the treatment proceeds, and at the same time the temperature may in some instances be reduced. An interval is imposed after each second, third, or fourth bath taken in daily succession, and it is prescribed that each bath should be followed by an hour's rest in the recumbent position. It is important that careful observation of the patient's general condition and of the state of the heart and pulse, both before and after the baths, should be made from time to time in order that precise instructions should be given as to their strength and duration. Generally speaking, the effects of the baths are cutaneous excitation, amounting in the stronger effervescing baths to rubefacience, a sense of refreshment not inconsistent with appreciation of the prescribed hour of rest, stimulation of the appetite and an eventual gain in weight. Their effect on the pulse is at once to reduce its frequency and to increase its force, and very soon the heart is induced to expel the blood stream faster than it can return. Indeed, the efferent vessels down to the smallest arterioles seem to be stimulated to greater carrying capacity and functional activity, and the metabolic change becomes proportionately accelerated and improved; at the same time the combined influences of the temperature of the bath, and of the cutaneous excitation it induces, forbid a conflux to deeply seated organs, and congested viscera are made to partake in the effect of the general health-restoring impulse. In the case of a patient whose pulse, when he is in a state of repose, beats from 78 to 84 times in a minute, and whose heart is quite sound, I found that, on four occasions of immersion in one of the effervescing saline baths, it had within two minutes fallen to from 60 to 64; in ten minutes it had risen to from 66 to 68. The exertion of dressing

raised it to from 76 to 78, but after he had walked three-quarters of a mile to his room and assumed the recumbent position it fell to from 62 to 66. It will, therefore, be observed that the influence of the bath was not limited to the period of immersion, and it is reasonable to suppose that the allied results are not more transient.

The exercises to which allusion has been made are denominated by their designers *Widerstandsgymnastik*. They consist of movements calculated to bring into successive and regulated action almost every collective system of voluntary muscles which is comprised in the human frame. The patient is instructed to breathe slowly and regularly during their performance and to warn the attendant of any approach to palpitation. It is the office of this latter to resist each of the prescribed movements with a measure of force which just falls short of that which would be necessary to arrest it; to impose a short interval between each movement; and so carefully to watch the patient as to avoid sweating and the slightest distress of breathing, as indicated by the alæ nasi, the angles of the mouth, and the movements of the chest. The exercises consist of flexions and extensions, as well as adductions and abductions and rotations of the extremities, both upper and lower, in orderly succession, together with rotations and flexions of the trunk, care being taken that the same movement should not be practised twice in immediate succession. The dimensions of the heart and the character and quality of its sounds should be ascertained by the physician before and after each series of exercises, and, if necessary, intermediately. Their effect on the pulse is to materially increase its force, although diminution in the frequency of its beat is often delayed, sometimes even for a few days, but not so the diminution in size of a dilated heart. I have had the opportunity of observing in one hour a shrinking of the area of dulness, as measured obliquely a little below the nipple line, of four, and even six, centimetres, and of two and three centimetres in the vertical line. In other cases, half an hour, and even twenty minutes, have sufficed to induce notable diminutions in the area of dulness. As a general rule, the exercises are not persevered with for more than half an hour at a time; but, in any case, their careful control and regulation by the physician in attendance effectually secures the damaged organ from injury; and, in this respect, the method under consideration may compare favourably with results effected by climbing, as recommended by Oertel, and by movements produced by mechanical appliances.

Let it at once be acknowledged that the whole of such contraction does not represent a permanent gain. In the time that intervenes before the next day's exercises the dilated organ tends to return to its former dimensions; but in favourable cases every bath and every series of exercises leaves recorded on the damaged heart a measure of contraction which is appreciable on the following day, and is generally, in the end, found to be permanent. It will be observed that the effects of the baths and exercises, though similar in their direct effect on the heart, are not identical in some other respects. The retardation of the pulse is immediate in the case of the baths, it is generally not so with the therapeutic exercises; while, on the other hand, the amount of heart contraction induced by the exercises is greater and perhaps more immediate than that generally observed to follow a bath. These points of difference are not without importance in relation to treatment, and it must rest with the physician to decide, in each case, whether either treatment should be pursued to the exclusion of the other, or whether both should be brought into requisition at suitable times and intervals. It must not be overlooked that, as with the baths, so with the exercises, other organs share in the general recuperative process. Such is especially the case with congested abdominal and pelvic viscera. It is not uncommon for a free flow of urine to ensue; and, where the liver is enlarged as a consequence of the existing impediment to the circulation of the blood, a diminution of as much as from one to four centimetres in vertical measurement may take place in one hour, subject, however, to the same subsequent fluctuations as it has been shown take place in the dimensions of the dilated heart. That the diminution of the area of cardiac dulness is not due to increased inflation of lung tissue induced by the exercises, is shown by the fact that, even where the extreme amount of contraction is induced, the level of the diaphragm either remains stationary or moves in an upward direction. Certain it is that after the exercises the patients breathe deeper and more slowly, and it is not uncommon for a patient, while performing the movements, to volunteer the remark that he feels that a load is being moved from the chest. It is possible that the differences which may be observed between the effects of the baths and of the resisted exercises may be due to the fact that the centripetal nerve influences they both bring into play are excited in different manners and proceed by different paths. In the case of the baths every one of the sensitive nerve branches distributed over the immersed surface sends its influence back to the parent centre. That the nerve centres are brought under powerful influence is attested by the striking trophic changes which may be observed to follow a course of Nauheim baths unaided by the internal use of natural or pharmaceutical remedies in cases of anæmia, wasting, neurasthenia, and above all in cases of osteo-arthritis. In such cases the rehabilitation of the trophic and probably of other central nerve tissues is so lasting that progressive improvement may be observed to be taking place for three or more months after the completion of the bathing course; and it need hardly be pointed out that such a process of general restoration is a factor of scarcely secondary importance, even where the cardiac condition claims the attention of the physician as the main indication for treatment. Dr. Schott is of opinion that the stimulation of the nerves of sensation induced by immersion in these baths is not alone the result of the cutaneous excitation already alluded to, but that an additional and more prolonged stimulation is excited by imbibition into the superficial layer of the corium of some of the mineral constituents of the waters, and by absorption of the carbonic acid gas given off by effervescence. With regard to the resisted exercises, I think that it must be admitted that the contraction of the dilated heart cannot be solely attributed to the fact that the rate of outflow is made to exceed that of the inflow of blood. The motor nerves, which are called into orderly and regulated activity, seem to call upon the ganglia controlling the heart's action to enforce a tonic contraction of the myocardium, and, at the same time, to lead to the establishment of a better habit of both function and repair. It is as interesting as it is important to note that no restrictions as to the amount of fluids taken by the patient are enforced in the case of treatment either by baths or exercises.

Dr. Theodor Schott, as the result of observations extending over some eighteen years, affirms that benefit may be expected to accrue in all cases of chronic heart disease, whether of valvular or parietal incidence, except where such conditions have led to, or coexist with, either advanced myocardial or arterio-sclerotic degeneration or aneurysm of either the heart wall or a great vessel. I have myself been witness of improvement amounting to practical—or, more rarely, actual—cure in such cases as the following: stenosis of either the aortic or mitral orifices; stenosis of both; insufficiency of either or both, in each case with dilatation; dilatation consequent on myocarditis, on habitual hæmorrhage, and on anæmia; fatty degeneration of the heart (interstitial); weakened heart; congenital mitral insufficiency; patency of the foramen ovale; and angina pectoris of both neurotic and organic causation. The diagnostic and prognostic value of the therapeutic exercises must not be overlooked. Familiarity with the effects which they may be expected to produce on healthy and on weakened walls assists the physician in the detection of early stages of dilatation which it might otherwise be difficult or impossible to recognise. More pronounced dilatation may be readily differentiated from parietal hypertrophy, superincumbent fat, and pericardial infiltration. The measure of contraction induced by a few exercises readily discloses whether an excessive area of dulness is due to dilatation or to a substantial mass of unyielding tissue. As regards prognosis, valuable information may be derived from observation of the rate at which præcordial dulness yields to the treatment and by ascertaining after the lapse of a few days, before the exercises have been performed, what measure of more than temporary contraction has been secured. Lastly, an unsuspected valvular lesion may be betrayed by the development of a bruit while they are in progress. A question of no secondary importance is, May such recovery of heart power and efficiency, together with the improvement in the general health which is contemporaneously effected by the methods under consideration, be so enduring as to justify, in the greater number of instances, the return of the subject to the cares and labours of an active life? From my own observation and from the testimony of many patients who have spontaneously returned to Nauheim either to confirm their recovery or to express gratitude for its permanence, I am able to reply that such is the case.

It now remains to give, as briefly as may be, the essential details of a few illustrative cases, those of the first three being gathered from the testimony of the patient and of one or more friends who had enjoyed opportunities of continuous observation.

CASE 1.—A woman fifty years of age, residing in North Germany, was sent to Carlsbad in 1892 for relief of cardiac incompetence, attributed by a physician in Berlin to fatty degeneration. She drank the waters, but abstained from bathing. She did not improve and after an interval of six or seven days grew daily weaker, with increasing breathlessness and sense of weight in the chest. A few days later she was seized at midnight with urgent dyspnœa. She was found to be suffering from œdema of the lungs, with free expectoration, swelling of the legs, and an appreciable measure of abdominal enlargement, all of which symptoms the physician in attendance attributed to dilatation and incompetence of the heart. She travelled home under the charge of a medical man and a trained nurse. The œdema gradually cleared up; but throughout the following winter she remained feeble, depressed in spirits, irritable, and subject to dyspnœa on ascending stairs or inclines. In that condition she arrived at Nauheim on July 25th last and at once had recourse to mineral baths. Their effect was so good that neither drugs nor exercises were called into requisition. On Aug. 29th she was visited by Dr. Hermann of Charkoff and myself and gave the above testimony, which was corroborated by her husband. She presented a healthy and cheerful appearance and expressed herself as feeling quite well. Her pulse varied from 70 to 80 and was of average force and volume. The apex of the heart was found to beat in the fifth interspace, two decimetres outside the nipple-line; the base extended to the mid-sternal line, and the left auricle to the lower margin of the third rib; the heart sounds were healthy.

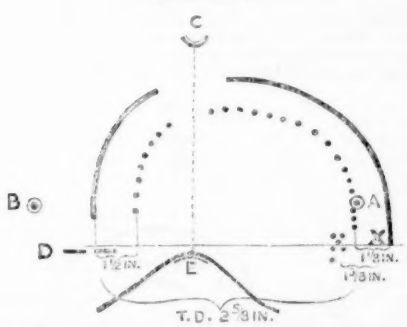
CASE 2. — A gentleman farmer thirty-four years of age suffered eighteen years ago from an access of acute rheumatism which involved the cardiac valves, but from which he otherwise made a good recovery, and he remained in the enjoyment of good health until the spring of 1892, although two years previously he had had a severe attack of influenza. That affection seized him again in March, 1892, and from that time forward he suffered from dyspnœa until he repaired to Nauheim in May last. He could then walk no more than fifteen to twenty steps without stopping to take breath, and that only with the support of a second person. During the preceding months he had suffered from the following train of symptoms: nervousness, anxiety, irritability, constant yawning, and profuse perspirations followed by feverishness and pain at the præcordia and epigastrium. He derived so much benefit from the baths that he did not have recourse to medicines or exercises. He was found in August last to be a well-built man of singularly healthy appearance, with good complexion and ruddy lips, and he stated that since he had undergone the course of baths in May he had been able to walk as well as other men of his age, to remain in the saddle from two to three hours in the morning and again in the afternoon, and to attend to all his business affairs without being conscious of anything wrong. When examined on Aug. 29th the apex was found to beat in the fifth interspace, one centimetre within the mamillary line; the left auricle extended to the third interspace, and the base to the mid-sternal line. Careful auscultation was required to detect a soft basic diastolic *souffle* suggestive of aortic insufficiency. He had undergone a bathing course of four weeks in the spring and another of six weeks, dating from the beginning of July. Dr. Schott stated that on arrival at Nauheim in the spring the patient's face was livid, the left ventricle extending to the posterior margin of the axillary space, and the base of the heart from five to six centimetres beyond the normal limits. The liver also was enlarged. He attributed the symptoms to either endo- or myo-carditis consequent on influenza.

CASE 3.—A youth seventeen years of age, a resident in Berlin, with good facial aspect, clear complexion, and ruddy lips, was examined by Dr. Hermann and myself on Aug. 16th. His father and mother reported that he was in the middle of the third week of his fourth consecutive annual visit to Nauheim. Before his first visit his face had been livid, and his lips and finger tips almost black; his gait was stooping, and he could walk no more than three or four paces without pausing to recover breath; he had not lain down in bed for more than a year; he could obtain no settled sleep, and such as he had was qualified by frequent tossing and groaning. The treatment pursued during the first two visits to Nauheim had consisted of baths combined with remedial exercises, and that of the remaining two of baths only. The cyanosis and dyspnœa had disappeared at the conclusion of the second course and had never since returned. He was stated to have a good appetite and excellent spirits, and to be able to study and to walk as well as other lads of his own age; but, by way of precaution, he had, up to that time, been restrained from running and joining in athletic games. The testimony of all the physicians who had been consulted was that he was the subject of a patent foramen ovale. On examination he was found to be pigeon-breasted; the apex was found to be in the sixth interspace, in the nipple-line; basic dulness extended to one centimetre beyond the right sternal margin, and a distinct, though not loud, systolic souffle was audible at the apex; the pulse frequency was from 88 to 90.

The following cases are those of patients who were examined before coming under the treatment in question and are illustrated by tracings taken from the chest.

CASE 4.—This patient was a stout, well-built, fresh-looking man forty years of age. He brought letters from Professor von Jörgensen of Tübingen and from his brother, who is a medical man, both of which described him as having been addicted to alcoholic excesses and being the subject of cor adiposum. The following observations, including those derived from auscultation and percussion, were made by Dr. Hermann and myself. Before the exercises the heart sounds were barely audible through a binaural stethoscope, and the apex-

DIAGRAM 1.



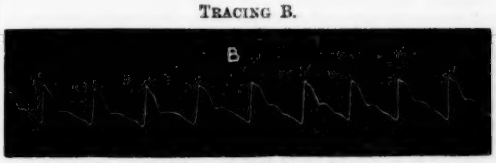
A, Left nipple. B, Right nipple. C, Fossa jugularis. D, Upper level of hepatic dulness. E, Ensiform cartilage. T D, Total diminution of area of cardiac dulness. X, Position of apex beat.

beat was inappreciable. There was some œdema of the lower extremities. The area of cardiac dulness was as indicated (*vide* diagram). The sphygmographic tracings are given with those of the areas of dulness. The pulse was 105, giving a manometric pressure of 88 m.m. of mercury. After exercises

TRACING A.

Before exercises.

TRACING B.



After twenty minutes' exercises.

extending over twenty minutes the pulse was 105 and the pressure 120. After fifteen minutes more of exercises with strong resistance the pulse was 94 and yielded a pressure of 150·5.

At the conclusion of the exercises the apex-beat became, for the first time, appreciable in the fifth interspace. With regard to the unusual extent of cardiac dulness, it should be stated that the patient was a man of almost colossal pro-

TRACING C.

After thirty-five minutes' exercises.

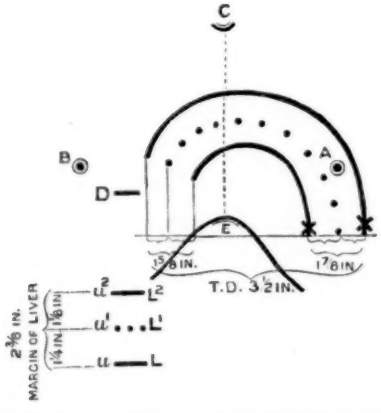
TRACING D.

After forty-five minutes' exercises.

portions, as may be noted by observing the distance which lies between the nipples, amounting to a fraction more than fourteen inches and a quarter from centre to centre.

CASE 5.—A man twenty-two years of age, a hard drinker, the subject of recent myocarditis, chronic hepatitis, and albuminuria. The tracings of cardiac dulness, as based on percussions practised by Dr. Hermann and myself, were made before the exercises and after half an hour and an hour

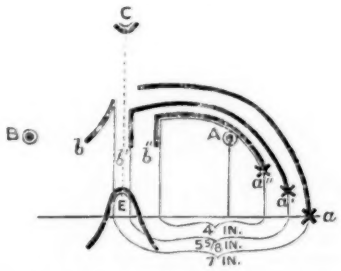
DIAGRAM 2.



respectively. The oblique or long diameter of cardiac dulness was reduced in the hour from eight to four inches and a half, and in the same interval of time the lower edge of the liver ascended to the extent of two inches and a half without any change occurring in the level of the hepatic portion of the diaphragm.

CASE 6.—A youth seventeen years of age, a patient of Sir Dyce Duckworth in the John Ward of St. Bartholomew's Hospital. He had a loud double mitral murmur, the result of old rheumatic peri- and endo-carditis. No tracing was taken after the administration of the first exercises, as one of four observers differed from the other three as to the amount of diminution. Exercises were administered by the clinical clerk on three following days and then discontinued. After five more days I administered the exercises for an hour, with the result indicated on the chart. The demarcations on that occasion were made by one of the house physicians and attested by another and by one of the clinical clerks. The second line indicates the gain which remained from four consecutive exercises after an interval of five days. An hour's exercises then resulted in an oblique diameter from base to apex of 4½ in. as compared with the original, which measured 8¼ in. The patient was shortly afterwards discharged, but was readmitted a few weeks later suffering from the effects of a severe chill, of which he died. The pericardium was

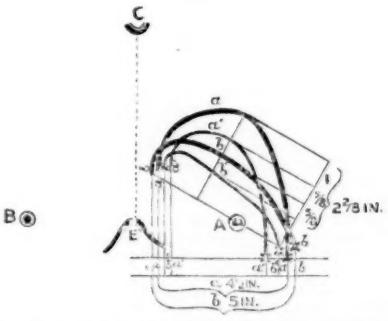
DIAGRAM 3.



found to be almost wholly attached to the heart by old and dense adhesions.

CASE 7.—The following case presents a point of special interest, illustrating as it does a class of cases in which, the left side of the heart being mainly or exclusively involved in the deformities of dilatation, the lines of shrinkage follow a course which differs essentially from those which have already been submitted. A woman forty-six years of age at the present time, and the subject of inveterate lithæmic tendencies, rapidly developed in the winter of 1891–92 a loud, rasping basic systolic bruit which was accompanied by a systolic apex souffle. Her health rapidly failed, and the cardiac condition, involving as it did loss of sleep and appetite and steadily increasing dyspnœa, threatened to bring her life to a close. All ordinary resources having failed to afford relief, I suggested recourse to the Nauheim baths and treatment by exer-

DIAGRAM 4.



cises, with the practical details of which I was then unacquainted. The journey, however, appeared to involve such serious risk that I did not venture to authorise it; but as Dr. Hermann Weber came to the conclusion that it probably afforded the only remaining chance of life, it was decided to undertake it. The distance from the English coast to Mainz on the Rhine was covered by steamer. When again seen in the following October the patient was restored to her former measure of health and pursuing her usual avocations. In May, 1893, she returned to Nauheim for a second course, and on her return I was unable to detect either the basic or systolic bruit, and the heart was fully competent. In the middle of November a severe access of influenza, unaccompanied by catarrh, and the whole incidence of which appeared to be on the heart and nerve centres, was followed by a return of the bruits and incompetence. The exercises, which in no case were prolonged beyond fifteen minutes, induced the changes which are indicated in the diagram. It will be observed that a shrinkage of 2½ in. in the region of the left auricle accomplished by four exercises of the brief duration just specified, is accompanied by an increase of the long axis of the heart of ½ in., both apex and base sharing in the extension. I have observed similar changes in two other cases, in which the left heart had suffered deformity as the result of aortic insufficiency.

Gledhow-gardens, South Kensington

OPERATION FOR RUPTURE OF THE INTESTINE WITHOUT EXTERNAL WOUND.[1]

BY WILLIAM HENRY BATTLE, F.R.C.S. ENG.,
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FEW cases that are brought under the notice of the surgeon cause him greater anxiety than severe injuries of the abdomen, and I think that there are none which call for the exercise of the highest powers of diagnosis and treatment more than those which belong to the class to which I wish to draw attention. It is not claimed that this case presents anything new in the way of treatment; still, as the damage was more extensive than is recorded in any cases that have been submitted to operation up to the present, it is possible that some useful lesson may be learned from its consideration. At all events, it gives us the chance of appreciating the advances which have been made since Mr. Croft demonstrated to the profession that traumatic rupture of the intestine without external wound could be cured by the surgeon.

A stableman aged twenty-four was admitted to St. Thomas's Hospital on Aug. 10th, 1892, suffering from the effects of a kick in the abdomen by one of the horses in the yard in which he worked. The injury occurred about a quarter past two in the afternoon, and the patient was carried to the hospital, where he was received in a very collapsed condition. He had not vomited. The patient was a fair man of slight build, suffering markedly from shock, with anxious, white face, and a small and feeble pulse. He complained much of pain in the abdomen. Below the umbilicus, extending more to the left than to the right of the middle line, was a bruise, not particularly defined, but in the situation where the hoof of the horse had struck him. The abdomen was extremely hard to the touch, somewhat distended, and did not move with respiration. Dulness was found on percussion over the front of the abdomen. A catheter was passed, and about half a pint of clear urine drawn off; it escaped with a fair amount of force. Soon after admission to the ward he commenced to vomit, bringing up entirely undigested food. When I saw him about 3 P.M. he was still suffering much from shock, being cold and shivering, with anxious face; he lay on his right side with limbs and body flexed, and vomited from time to time. He complained much of pain in the abdomen, which was excessively hard and fixed, like a board, and very tender. Light percussion showed that there was dulness over the anterior part of the abdomen, that this dulness was increasing (the house surgeon, Mr. Milton, had noticed it on admission, when it was less extensive), but that it did not extend into the left flank, nor was it evident in the epigastric region.

From the symptoms described above (especially the condition of the abdomen, the pain, and the frequent vomiting) and the history of the accident, the opinion formed was that the man had sustained intra-peritoneal rupture of the intestine, and rupture of the mesentery or omentum. As the shock was pronounced, it was decided to wait before operation in order to give him time to rally, and as the diagnosis was made a subcutaneous injection of morphia was administered to relieve the pain. At 8 P.M. he was placed under ether, and a median incision was made, commencing just below the umbilicus. Slight extravasation of blood was present in part of the incision, and the peritoneum bulged forward when reached, looking black in colour, and when it was incised a gush of blood followed. The patient was straining at this moment, and a coil of intestine was forced out. A rent was found in the mesentery of this coil, which was bleeding freely; the hæmorrhage was being arrested with clamp forceps when the open end of a piece of intestine sprang into the wound. The other end was found by tracing the mesentery along. This portion of mesentery was much contused and lacerated, and it was found that when fully exposed the damaged portion extended nearly to its parietal attachment, spreading outwards in a fan-like manner beyond a second complete rupture, about eight inches from the first. The intestine was as completely divided as with a knife, in both places the mucous membrane protruding and curling over the other coats. Only a small amount of intestinal contents had escaped, amongst which were one or two partly-digested beans. Slight hæmorrhage was going on from the mesenteric lacerations; the intestine was contused, and in one or two places the peritoneal surface was somewhat torn. It was evident that the contusion and laceration of the mesentery would result in gangrene of the bowel if it were left, and that it would be difficult, if not impossible, to arrest the hæmorrhage from the lacerations without removing it. So I decided to resect the bowel with the damaged mesentery. The bowel was divided beyond the rupture on each side, and a large wedge-shaped piece of mesentery removed with it. The bowel removed measured nearly thirteen inches, and the section was made where the gut appeared to be undamaged and its mesentery without laceration. Great care was taken to secure bleeding points, which were numerous. The edges of the incision in the mesentery were sewn up with a continuous suture, and as it was agreed to employ lateral anastomosis at this part the ends of the intestine were turned in and the peritoneal coats brought together by means of a continuous suture inserted after Lembert's method. At this stage in the operation Mr. Milton assisted in suturing the mesentery whilst I was suturing the bowel, thinking that we had probably found the extent of the damage, when another rupture was discovered about a foot beyond. This rupture, which was as cleanly made as the others, did not quite surround the bowel, none of the coats being ruptured for about a quarter of an inch on each side of the mesenteric attachment. Bleeding points having been secured, these two ends were brought together end to end by means of Senn's plates, cut to the required size, and a ring of Lembert's sutures used to further strengthen the union. Neither of these ends was resected, they did not appear bruised, and the mesentery was intact. Returning to the resected closed ends, which had been left for a time, an incision was made into each as nearly as possible opposite the insertion of the mesentery, about two inches and a half from the end; a Senn's plate was passed into each of these openings, the two parts were brought into apposition, and additional sutures placed around after Lembert's method in order to give greater security. No other injury having been found, the intestine was returned, though with some difficulty, on account of the rigidity of the abdominal walls. The abdomen was then washed out with boracic acid solution, a Keith's drainage-tube was passed into the pelvis, and the remainder of the incision closed with deep silk sutures. During the operation, which was necessarily a prolonged one, lasting more than two hours, the patient suffered severely from increased shock, and five pints of saline solution were injected into the left median basilic vein. This had an immediately good effect on the pulse, which was maintained throughout the rest of the operation.

During the after-treatment of the case his chief complaint was of thirst; this was excessive and could hardly be assuaged. Small quantities of warm water were frequently given, but relief was only partial; ice, which was tried later, gave him more relief.

The operation was performed on the 10th, and he had no sickness until the morning of the 12th, when he vomited frequently small quantities of bile-stained fluid without any effort. On the 13th the vomiting occurred at intervals of from half to three-quarters of an hour, about an ounce at a time, of yellowish-brown, acid-smelling fluid; in the evening, as the vomiting continued, a simple enema was given, and the bowels acted freely. Afterwards he vomited about three-quarters of a pint of fluid, the pulse increased in frequency, and he complained of some pain in the abdomen; but this passed off in an hour, and he slept comfortably through the night. No return of the vomiting took place until 6.45 P.M. of the 15th.

The morning after the operation it was noted that the abdomen was softer and moved slightly with respiration. About two ounces of blood-stained fluid were removed with a pipette. In the evening only two drachms of fluid were removed, and Keith's tube was taken out; a suture which had been left in position was tied, thus closing the abdominal wound. On the 14th the abdomen was flaccid and moved well with respiration. The patient was at this time doing very well; he had no pain, his tongue was clean and moist, he had recovered from the shock, and he spoke cheerfully and with a strong voice. The only evidence of anything being amiss was the temperature, which was always 100° F. or above

[1] A paper read before the Medical Society of London on April 30th, 1894.

in the evening, and never quite normal in the morning. Nothing but warm water, and later ice, was given by the mouth, the patient being fed with nutrient enemata until the 14th, when the administration of milk was commenced, one drachm every half-hour. Next day, the 15th, some meat essence was also allowed, but in small quantities. Until 6 45 P.M. of the 15th everything appeared to be satisfactory, with the exception of the temperature; at that hour he vomited, complained of severe pain in the abdomen, and passed into a state of collapse, with local signs of peritonitis. The temperature rose to 101°. It was evident that perforation had occurred. As soon as possible after my arrival at the hospital the patient was placed under ether and the abdominal wound opened up and extended. A coil of intestine presented; this was found to be the part of the intestine which had been placed in lateral anastomosis. The appearance was that of normal gut, but on handling a hole was found through which some of the contents escaped. This was evidently a suture hole torn by the manipulation, there being no lymph or evident ulceration. Three Lembert's sutures were inserted. More to the left of the abdomen, the other point of suture was found; several stitches had given here, union between the ends had broken down, some of the contents of the bowel had passed through, and the coils of intestine near were covered with flaky lymph. In the condition of the patient it was not possible to resect the bowel and perform enterorrhaphy, so an artificial anus was formed as quickly as possible, and the open ends were secured to an opening in the linea semilunaris. The median incision was closed. He died at 4.30 A.M. on the 16th, not having rallied from the operation.

Necropsy.—There was no evidence post mortem of injury to the abdominal wall beyond that resulting from the incisions. There were old and firm adhesions between the diaphragm, the liver, and spleen, also between the parietal peritoneum and the omentum. The right pleura was firmly adherent all over, and there were some firm adhesions of the left pleura. There was recent peritonitis, most intense below the left costal cartilages. The first rupture of the bowel had occurred twenty inches from the pylorus; this was the part fixed to the abdominal wall. The ends of the part which was united by lateral anastomosis were softened and congested, the mucous membrane beginning to slough. The plates had disappeared. Recent hæmorrhages were present in the lower lobes of the lungs; hæmorrhage had been extensive in the left lung.

Remarks.—I was most favourably situated in this case for the carrying out of the necessary treatment. The patient was admitted soon after the injury, and I saw him not long afterwards, being able to make a diagnosis and to prepare for what proved to be a most formidable operation when he had somewhat recovered from the shock. The history of injury—the kick of a horse—was very definite, and this is one of the most common causes of subcutaneous rupture of the intestine. The symptoms commenced immediately after the injury and indicated severe damage to the abdomen; there was intense pain, rather of a paroxysmal character, accompanied by vomiting, well-marked shock, and great anxiety of mind. The hardness of the abdomen was remarkable; the walls appeared immovably fixed, and respiration was entirely thoracic. The only local evidence of the kick was the slight bruising alluded to, and this would have been overlooked without careful search. The slightness of the discolouration has been frequently noted in similar cases, and I should not allude to it here, only it is of some importance from a medico-legal view; only a year or two ago a man who had kicked another in the abdomen with fatal effect was acquitted by the jury because *they* did not think that so severe an injury as rupture of the bowel could have been caused, as was proved to have been the case, without more external signs of damage. It was considered that the dulness on percussion in this case indicated rupture of the omentum or mesentery, and that this dulness was caused by the blood effused. The amount of extravasation of contents of the bowel is not sufficient of itself to produce dulness in these cases, and, rupture of other viscera having been excluded, there is no other likely source but one of the structures named. In itself the presence of this fluid, if increasing in amount, is enough to justify exploration; for if it comes from a lacerated mesentery death may ensue in consequence of its quantity, or the interference with the blood-supply may lead to gangrene of bowel over a limited area at a later date. There are many cases which differ from the type represented in the history of this patient. In 1885[2] I showed a specimen of rupture of the intestine to the Pathological Society. The man, aged twenty-one, was kicked by a horse in the left side of the abdomen at 5 P.M. the day before admission; he seemed unable to move for about a quarter of an hour, but then went on with his work till 6 30 P.M. On returning home he had food, but vomited it almost immediately and was restless during the night; however, he went to work in the morning at six o'clock. After a slight breakfast he was unable to resume work, on account of pain in the abdomen and vomiting, and went home to bed, whence he was brought to hospital at 1.30 P.M., having been frequently sick and in a state of collapse. He died from acute septic peritonitis twenty-seven and a half hours after receipt of the injury. There was rupture of the small intestine, the opening measuring an inch and a quarter in the long axis and half an inch transversely, with contusion and laceration of the bowel round it. Such cases are not common, but have been observed by others. It is probable that had this patient been admitted at first the true state of affairs would have been recognised in time to have permitted some effort at relief. A rise of temperature may be an important indication of the early onset of septic peritonitis, as in one of Mr. Croft's cases. This would have been overlooked had that case been at home and the importance of the other symptoms under-estimated. It was once my duty to treat a man who was admitted with an inguinal hernia in which strangulation had ensued immediately after he had been knocked down and run over. He was much relieved by the operation for hernia, but became extremely restless and died on the fifth day from peritonitis with albuminuria. After the "ether vomiting" he had no more sickness. At the post-mortem examination a rupture of the small intestine was discovered six and a half feet from the ileo-cæcal valve. It was in the long axis of the gut and measured about one inch and a quarter in length. The peritonitis was very intense. Operation must be regarded as the only chance of saving life, even if peritonitis has commenced; this complication is most serious, but patients have recovered. A remarkable case is recorded in which a patient with peritonitis due to injury was submitted to operation. A hernial sac when explored was found to contain a piece of potato. No opening in the bowel could be found, although such must have been present and of large size; yet the patient recovered. A second exploration, also through a median incision, gave a negative result. The best chance, however, is afforded by *early* operation; this is proved by recorded results. So far as I have been able to discover, there have been fifteen operations for this injury since Mr. Croft read his last paper before the Clinical Society in March, 1890, including the case now brought forward. I have appended a list of them. My case survived for six days, but no less than seven have recovered completely; the others died—viz., peritonitis &c., 4; exhaustion and congestion of lungs, 1; exhaustion, 1; shock, 1. This shows a great improvement as compared with the earlier series collected by Mr. Croft, for out of fourteen then known only one was completely successful—a boy who was operated on by Mr. Croft—and one died a month after the first operation from exhaustion after operation for the closure of an artificial anus; this patient was also under the care of that surgeon. By "operation" I would imply abdominal section and the union of the bowel after resection of the contused edges, not the formation in any case of an artificial anus; in this I am in accord with Mr. Croft. There are several reasons for this. 1. The rupture is generally found high up in the jejunum, most frequently in the first three feet—a bad position for artificial anus, from the difficulty met with in adequately feeding the patient. 2. The rapidity with which we can now bring together the divided ends by means of some mechanical contrivance such as Dr. Murphy's button. 3. The risks of a later operation for the closure of an opening of the bowel in a patient whose general condition is bad. The large area of mesentery which had been lacerated and contused in this case formed a most serious complication, for much time was required in excising it, owing to its extent, the free hæmorrhage from numerous large vessels, and the necessity for careful suturing afterwards. It is also possible that the extensive bruising of the mesentery may have had something to do with the failure of union from interference with the proper supply of blood to the parts. Luckily, this is not a frequent complication. Dr. Curtis estimates that it is only present in about 16 per cent. If a similar case came

[2] Transactions of the Pathological Society, 1885, p. 231

under my care I should resect edges although they looked healthy. It was chiefly the bad condition of the patient that made me trust to suture without resection. Another point which this case impressed on me is the advisability of making the abdominal incision at or above the umbilicus. It is difficult to adequately examine and manipulate the intestines if the incision is made below that point. I wish to thank Mr. W. F. Milton for his great assistance at the operation and care of the patient. Mr. F. C. Abbott and Mr. T. A. M. Forde also rendered much help during the operation.

A CASE OF
LEFT HEMIPLEGIA, HEMIANÆSTHESIA, AND HEMIANOPIA FROM SOFTENING:
WITH REMARKS ON DIAGNOSIS AND TREATMENT.[1]

By C. E. BEEVOR, M.D., F.R.C.P. LOND.,
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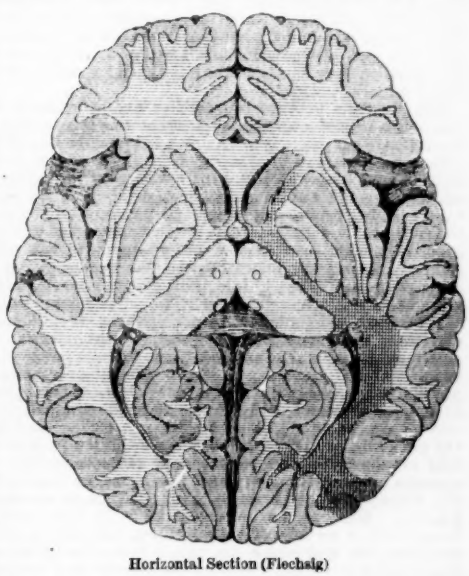
A MARRIED WOMAN sixty-nine years of age, doing housework, came to the out-patient department of the Great Northern Central Hospital on Aug. 29th, 1893. She stated that six months before admission she had an attack, with sudden onset, in which she had lost power in the left side, affecting the left half of the face and the left arm and leg; she also thought that there was some loss of sensation on the left side. Three weeks before admission the sight became affected so that she could not see objects to the left of her. Whether this affection of the sight was due to a second attack, or whether the sight had been affected in the first attack and she had not noticed it, could not accurately be ascertained. On examination there was slight weakness in the left side of the face and the left arm and leg, but she was able to use her left hand fairly well and perform all movements with it, and could walk without dragging the left foot. On testing her sensation there was a distinct difference between the two sides. Over the whole of the left side of the face, trunk, and limbs she could not feel touches and pin pricks so well as on the right side. On testing her sight she was found to have left hemianopia—i.e., in testing both eyes singly she had lost vision for all objects situated to the left of the vertical central line of vision. She had general anasarca, but especially in the ankles, and some fluid in the left pleural cavity. The urine contained a large quantity of albumen, but there was no cardiac lesion. She was admitted into the hospital on Sept. 8th, and from the notes of Dr. Walker, the house physician, it appeared that she had a neurotic family history, her father and brother having been paralysed. She had suffered from gout and rheumatism for the last fourteen years. On examination she presented the same symptoms as in the out-patient room, except that the anasarca was more marked, there were signs of fluid in the right pleural cavity and in the abdomen, and the urine on boiling was nearly solid with albumen. She had severe dyspnœa and died on Sept. 10th.

The main symptoms in this case, therefore, were, when I saw her in August, slight left hemiplegia, some loss of sensation of the whole of the left half of the body, including the trunk, head, and limbs of the left side, and left hemianopia. Whether all these symptoms came on at the same time as the result of her paralytic attack is not certain, and whether she lost her senses in the attack also could not be ascertained accurately. As regards the different parts of the brain, lesion of which gives rise to hemiplegia, I would divide them into three—viz., the cortex, the internal capsule, and the crura cerebri.

[Photographs were then thrown on the screen of the cortex of the macaque monkey and the orang-outang, showing the areas for the representation of different movements of the face and limbs, including the different segments, as the thumb, fingers, wrist, &c., and it was stated that they were obtained by dividing the cortex into squares of $\frac{1}{12}$ in. each side and observing the movements obtained by faradising each square. The results of a lesion of the cortex cerebri were then described as: (1) irritative, local fits being produced, beginning in the part irritated, and being followed by temporary paralysis; and (2) destructive, permanent paralysis being produced in the part of the body the movement of which is represented in the region of the cortex destroyed, together with loss of the power of localising touches and loss of muscular sense limited to the paralysed part. Photographs were next shown of antero-posterior, transverse, and horizontal sections of the monkey's brain, and a diagram giving the order from before backward in which movements are obtained from the internal capsule by stimulating each $\frac{1}{12}$ square inch of its cut fibres, also the sensory portion (the posterior third of the posterior limb of the capsule), and behind that the optic radiations, a lesion of which would cause loss of the opposite fields for both the eyes, passing to the cuneus on the inner surface of the occipital lobe.]

The question of diagnosis in this case resolved itself into (1) the particular part of the brain affected and the area over which the lesion must probably extend to account for the symptoms; and (2) the nature of the lesion, whether hæmorrhage from an artery, blocking of an artery from a thrombosis found locally or from an embolism carried there from vegetations on the cardiac valves, or, lastly, a tumour.

1. The *part of the brain affected* in this case was considered to be the internal capsule and not the cortex, from the circumstances that the former is a much commoner seat of hemiplegia, that there were no fits, and that loss of sensation



Horizontal Section (Flechsig)

of the whole of one side is very rare from a cortical lesion; and to produce the above symptoms, including the hemianopia, a very large extent of the cortex would have to be involved. The other part of the brain which may give rise to a hemiplegia is the pons or medulla, but here there is usually paralysis of one of the cranial nerves, as the facial, on the same side as the lesion and on the opposite side to which the limbs are paralysed. To account for the symptoms in this case it would be necessary for the lesion to involve the posterior limb of the internal capsule, and behind this also the fibres of the optic radiations, which extend from the optic thalamus backwards to the occipital region, a lesion of which produces opposite hemianopia.

2. *The nature of the lesion.*—Excluding tumour, which nearly always has a gradual onset, the diagnosis lay between hæmorrhage from the bursting of a bloodvessel, when paralysis would be caused by compression or destruction of fibres by the effused blood, and blocking up of one or more arteries by thrombosis or embolism, thus causing softening by cutting off the blood supply. On looking at the extent of brain which is required to be affected to produce the symptoms in this case I think it will be seen that an extravasation of blood sufficient to cover the whole area would probably have killed the patient from shock, whereas it

[1] A paper read before the North London Medico-Chirurgical Society on April 12th, 1894.

would be possible to have slight or no loss of consciousness from extensive blocking of vessels. There are other symptoms besides profound loss of consciousness, such as lowering of the temperature, followed by a rise, which are met with in cases of hæmorrhage and help the diagnosis; but what I would particularly draw attention to, is the relation of the absence or presence of unconsciousness at the onset to the symptoms presented by the patient, and the extent of brain which is required to be involved to produce them. The presence of albumen in the urine, with other signs of Bright's disease, may be a cause of either hæmorrhage or thrombosis of the cerebral vessels, but, if anything, it is rather in favour of the former. The diagnosis of this case was, however, considered to be softening, due probably to the blocking of a vessel and not to hæmorrhage, and as there was no cardiac lesion or other condition to give rise to an embolus the obstruction was considered to be a thrombus.

On examining the brain after hardening in Müller's fluid, by making horizontal sections through the hemispheres, a very marked softening of the posterior fibres of the right internal capsule was found. As shown by the diagram, the whole of the internal capsule was slightly affected, but the posterior third of the hinder limb was especially involved—the part which conducts the sensory impressions from the whole of the opposite half of the head, trunk, and limbs. More posteriorly there was softening of the white fibres of the optic radiations, extending back to the surface of the occipital lobe on the outer side. These lesions would thus explain the slight loss of power in the left face, arm, and leg, the loss of sensation over the whole of the left half of the body, and the loss of vision for objects in the left field of vision of either eye—i.e., left hemianopia.

The diagnosis between hæmorrhage and softening is very important in the question of treatment. In the case of hæmorrhage our desire is to diminish the force of the cardiac action and to stop the bleeding from the ruptured vessel, while in the case of blocking of a vessel by thrombosis or embolism part of the brain has been deprived of its blood-supply, and our endeavour should be to restore, if possible, the collateral circulation. It is obvious that what would do good in the one condition would do harm in the other. Formerly it was the practice to employ venesection in all cases of apoplexy, but it is evident that this would only do harm in cases of thrombosis, as it would still more weaken the cerebral circulation. If the patient is profoundly comatose, with stertorous breathing, absent reflexes, and with a strong regular heart and tense, incompressible pulse, venesection to the extent of ten to twelve ounces may be useful. From experiments on monkeys Horsley and Spencer have found that hæmorrhage from one middle cerebral artery may be readily controlled by compression of the carotid of the same side, and if in the comatose condition in man one side of the body is paralysed they recommend that the opposite carotid be compressed; here, as in venesection, the diagnosis of hæmorrhage must be made as certain as possible. With regard to ergot, it is in the cases of very slight or no loss of consciousness, followed by extensive paralysis, and which are probably due to thrombosis, that we should not use it as a routine remedy, as it would do harm in these cases by contracting the vessels and diminishing the cerebral circulation. With regard to stimulants, as in the one condition of hæmorrhage they would do harm, and in thrombosis they might be required, it would be best to make the diagnosis, and to be guided by the condition of the heart's action and pulse; if the diagnosis cannot be made between hæmorrhage and thrombosis it is better to withhold alcohol and only to give diffusible stimulants or digitalis if the state of the circulation imperatively demands them.

To sum up, I would emphasise the importance of a careful examination of the symptoms as soon after an attack of apoplexy as possible; of the anatomical localisation of these symptoms in the brain; of the relation of the extent of brain affected to account for the symptoms, with the absence or degree of unconsciousness, taking into account that with an extensive lesion and very slight loss of consciousness the cause could not be hæmorrhage.

Harley-street, W.

SUPERANNUATION GRANT.—Mr. Edward Meacham, M.R.C.S., lately medical officer for the third sanitary district of the Manchester union, has been granted a superannuation allowance of £110 per annum.

SYPHILITIC SPINAL PARALYSIS.[1]

BY WILLIAM ALDREN TURNER, M.D. EDIN., M.R.C.P. LOND.,
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IT is a moot point whether there is any single symptom, or combination of symptoms, by which a syphilitic lesion of the central nervous system may be diagnosed as such. Although one is at present unable to point to any symptoms pathognomonic of spinal or cerebral syphilis, there are certain phenomena which are highly suggestive of this condition. As examples may be mentioned cycloplegia and reflex pupillary immobility. Paralysis or paresis of accommodation in both eyes is usually a post-diphtheritic effect, but when the affection is limited to one eye, especially if it be associated with loss of the pupillary light-reflex, syphilis is more commonly the cause. The Argyll-Robertson pupil, either in one or both eyes, not infrequently exists without any other recognisable symptoms of tabes dorsalis. In this case the presence of early syphilitic implication of the central nervous apparatus is indicated. The fact that both paralysis of accommodation and reflex pupillary immobility occur as early phenomena in tabes may indeed confirm their syphilitic nature; but the influence of toxic agents, other than syphilis, cannot be disregarded as factors in their causation. The post-diphtheritic poison is well known to have an injurious influence upon both nerve cells and nerve fibres in the brain and spinal cord, and Gowers[2] refers to a case in which a chronic progressive degeneration of the motor cells of the bulbo-spinal centres appears to have been due to this agent. The poison of influenza also, whatever it may be, seems to have a special affinity for these same structures. I have notes of a case in which loss of convergence and paralysis of accommodation could only be attributed to this cause. The case was of interest, as it showed an implication of the centres for accommodation, contraction of the pupil with convergence, and for the associated action of the internal recti muscles. As the centre and path for the pupillary light-reflex were unaffected, the converse of the Argyll-Robertson phenomenon was obtained.

Erb[3] has recently described a combination of symptoms indicating a partial myelitis of the thoracic region of the spinal cord in persons who have been infected by syphilis. This combination is regarded by him as determining in all probability a disease *sui generis*, characteristic of an affection of a definite and constant part of the spinal cord, and one in which much benefit may be derived from anti-syphilitic treatment. It is, however, merely in their combination, the motor effects being largely in excess of objective sensory phenomena, and in the constant relation which these bear to syphilis, that their diagnostic importance, as stated by Erb, is found; for the symptoms are indicative, not of any special form of myelitis, but of inflammation affecting to a partial extent a special portion of the spinal cord. As there is at present under my care in the wards a patient whose symptoms harmonise with those described by Erb under the term "syphilitic spinal paralysis," I have taken this opportunity of exhibiting him and making some remarks on the condition.

CASE 1.[4]—A man twenty-eight years of age was admitted on Jan. 7th last, complaining of stiffness in the legs coming on when he walked and inability to retain urine. He states that his illness began about six weeks ago with pains across the lumbar region, which lasted about three days. Then slight dragging of the right leg when walking ensued, so that he was unable to raise his toes freely from the ground. This continued for about seven days, when the left leg became weak in the same manner as the right, although to a less extent. One week after the onset of the lumbar pains incontinence of urine, and to a slight extent of fæces, occurred, and existed with slight remissions until admission. The patient was a sailor for ten years, being chiefly engaged on foreign service. He has had one mild attack of malaria, without any recurrence. He contracted syphilis about ten

[1] A lecture delivered at the West London Hospital, on March 7th 1894. [2] Lettsomian Lectures, London, 1892, p. 52.
[3] Neur. Centralb., 1892, p. 161.
[4] I am indebted to my colleague Dr. Ball for handing the case over to me, and to Mr. Trethowan, the senior house physician, for the careful notes of the patient's condition.

years ago; his general health till the present illness began has been good. As regards the present condition of the patient he is a robust-looking, intelligent man, without any defect of articulation. He walks with a highly spastic gait, dragging both legs, especially the right, slowly along the floor. When placed in bed ordinary voluntary movements of the legs are good, although they are somewhat jerky and ungraduated. The tendon reactions are greatly exaggerated, patellar, ankle, and toe clonus being readily obtained. The plantar reflex is very active. There are some subjective sensory symptoms, such as occasional "pins and needles" in both legs, but without any pain. The objective sensory phenomena consist of a slight and local defect to tactile impressions over the front of the left leg, and some defect in the sense of position of the toes when they are passively moved. There is occasional incontinence of urine, which, however, not infrequently amounts to no more than a slight loss of retentive power, so that he has to pass urine several times an hour. There is no spinal pain or tenderness, the upper limbs are unaffected, and the pupils are equal and react to light. The other systems are normal.

The symptoms which characterise this condition are stated by Erb as follows: most typical is a markedly spastic gait, the patient dragging his toes tardily along the ground, the legs being stiff and rigid; but there is scarcely any loss of power, for when placed in bed he can move his legs freely and forcibly, although, as in Case 1, the movements may be jerky and ungraduated. Contractions such as are seen in myelitis, either idiopathic or resulting from the pressure of a tumour or disease of the bodies of the vertebræ, are rare. In only one-tenth of his cases did Erb observe any such contractions. In the case which I have narrated they are slight and infrequent. Great exaggeration of the tendon reactions is a constant phenomenon, patellar clonus, ankle clonus, and toe clonus being well marked. The sensory symptoms are characteristically subjective and slight, consisting mainly of numbness, tingling, and, very rarely, pain in the affected limbs. Objective sensory phenomena are seldom noted, although occasionally circumscribed patches of anæsthesia may be detected, as in this case. Affections of the bladder, causing either retention or incontinence of urine, are always present, and are sometimes, as in the case before us, associated with paralysis of the sphincter ani. Impotence is usually a constant and early symptom. Trophic changes are rare and have been observed only in very severe forms. The upper extremities remain quite unaffected. These symptoms may be grafted upon a case showing other syphilitic nervous phenomena, such as ocular paralysis, reflex pupillary immobility, and so on; but these are in no way essentials of the disease.

It is upon the association of these symptoms, in common with certain other facts to be shortly mentioned, that the diagnosis of this condition is based. The nature of their onset is also important. In the majority of cases it is gradual, extending over some weeks or months. In Case 1 the duration of incidence from the commencement, with lumbar pains, until both lower limbs were paretic, was about six weeks. The differential diagnosis has to be made chiefly between primary spastic paralysis, paraplegia resulting from a transverse myelitis due to some cause other than syphilis, and ataxic paraplegia. The second of these conditions is usually characterised by considerable objective sensory disturbance, such as anæsthesia to all forms of sensibility, marked paraplegia, and contractures. From primary spastic paralysis the differential diagnosis is more difficult. If seen in the early stages, the primary form presents a spastic gait, rigidity, and exaggeration of the tendon reactions, but without any, or with only very slight, sensory disturbance or implication of the organic reflexes. In this way it may be distinguished from the syphilitic spinal paralysis with its well-marked bladder and subjective sensory phenomena. The tendency of the syphilitic affection to resolve with lessening of the symptoms allows of more ready differentiation in the later stages from primary spastic paralysis, whose course is progressive. The greatest diagnostic difficulty is presented by ataxic paraplegia. In the early stages of this disease, especially if the onset be subacute, it may be necessary to await the course of events before an accurate diagnosis is possible. In the usual form of this affection the onset is gradual, a history of syphilitic infection is rare, and ataxia of the legs is an early symptom; it is not improbable, however, that the lesion underlying the syphilitic form of spinal paralysis may lead to the condition in the spinal cord which is characteristic of ataxic paraplegia—viz., a descending degeneration in the crossed pyramidal tracts and an ascending degeneration in the posterior columns.

The relation between this form of myelitis and syphilis has next to be considered. In all Erb's cases there was a history of syphilitic infection, as also was there in those described by Kowalewsky[5] and Muchin,[6] who, although regarding syphilis as the chief cause, do not deny the possibility of other toxic agents producing the same series of symptoms. It differs, however, from tabes dorsalis in some important etiological features. Of twenty-two cases observed by Erb the first symptoms were noticed in thirteen within three years of infection, and in eighteen within six years, while only four occurred between nine and twenty years after infection. In tabes, on the other hand, 12·3 per cent. were noticed to commence within the first six years, while between six and fifteen years after infection the earliest symptoms were observed in no less than 64·7 per cent. From this it is seen that syphilitic spinal paralysis is an early post-syphilitic spinal disease, while tabes is relatively late. It is more difficult to obtain accurate facts as to the frequency of this affection relatively to tabes dorsalis. Kowalewsky's figures are probably too high; of 152 cases of syphilitic affection of the central nervous system thirty-eight were cases of tabes, and twenty-one of syphilitic spinal paralysis. These observations were made at a spa in the Caucasus, to which tabetic patients do not appear to resort in large numbers. Erb's figures probably give a more correct estimate; in ten years 400 cases of tabes came under his observation, and only thirty-five of this form of syphilitic disease. The condition has so far been observed only in the male sex.

The prognosis is favourable both as regards life and improvement in the paralytic symptoms. The following case illustrates the amount of recovery which may be reasonably expected under suitable treatment in advantageous circumstances.

CASE 2.—A man forty-five years of age contracted syphilis seventeen years ago. Twelve months after infection he was seized with partial paraplegia and loss of power of the bladder and rectum, and at the same time he became impotent. Under suitable treatment the symptoms improved, and I saw him first sixteen years after the onset. His gait was not spastic, but the left leg dragged a little from a slight weakness in dorsally flexing the left foot. The knee-jerks were glib, the left being rather more active than the right. The only sensory symptoms were slight numbness on the outer side of the left calf and a dull aching sensation over the sacral region. Urination and defæcation were normal, unless the bladder and rectum were distended, when control was feeble. When standing with the eyes shut there was a tendency to sway, but this soon passed off. He has been impotent since the attack sixteen years ago.

Recovery to this extent, however, is not always to be expected. In a certain number of cases, where in all likelihood the white columns of the spinal cord have been damaged to a considerable extent, the symptoms may persist; while in a few instances death may ensue from extension of the inflammatory condition over a large portion of the cord.

What are the place and nature of the lesion which gives rise to these symptoms? Their combination points conclusively to an affection of the lower dorsal segment of the spinal cord and to an involvement of the white matter considerably in excess of the grey. The comparative absence of motor paralysis, combined with a markedly spastic gait and great exaggeration of the knee-jerks, indicates pressure from an interstitial exudation (probably gummatous) upon the fibres of the crossed pyramidal tracts rather than a solution of their continuity. The exact nature of the pathological process is, however, chiefly a matter of speculation, since, as already indicated, these cases do not present themselves for examination by the pathologist. The mode of onset, extending over several weeks, is against a hæmorrhagic or acute inflammatory process and is in harmony with a subacute gummatous infiltration, associated, or not, with gradual blocking of the arteries from thickening of their walls.

The treatment should be carried out on general principles. As soon as the patient comes under observation anti-syphilitic remedies should be pushed to their furthest limits, iodide of potassium and mercury being administered for six weeks or two months. During this period the patient is preferably confined to bed and gentle massage applied to the limbs. It is better to avoid either form of electricity

[5] Kowalewsky: Neur. Centralb., 1893, p. 393.
[6] Centralb. für Nervenheil., 1892.

Attention should be frequently given to the bladder and the catheter used when necessary. Galvanism applied to the spine for the impotence which usually results from this affection is not likely to be of much service.

Queen Anne-street, W.

AN ACCOUNT OF SOME CASES OF ACQUIRED SYPHILIS IN CHILDREN: WITH REMARKS.

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ACQUIRED syphilis in children of tender years occurs, I think, much more frequently than is generally supposed, and in the majority of such cases, when syphilis is diagnosed, it is presumed to have been inherited and is treated accordingly. This error results from a variety of circumstances, chief amongst which are the appearances of the initial sore and its surroundings, which are by no means constant. Mr. Hutchinson, referring to such erratic chancres, says: "It is impossible to make too much allowance for the extraordinary appearances which these chancres sometimes assume." When the chancre is situated on the lip it may closely resemble the primary sore met with on the prepuce or glans penis, and, like it, be accompanied by marked induration of its base and early infiltration of the neighbouring lymphatic glands. The last of the cases about to be described was of this description, and an illustration of a typical case is given in my clinical manual of Diseases of the Throat. In other cases, however—and this, in my experience, is the more common occurrence—it may resemble an extensive erosion of the mucous membrane of the lip, accompanied by considerable swelling and tenderness, but without induration of its base; or the surrounding inflammatory swelling may be so extensive as to obscure the specific induration, or when the angle of the mouth is the site of infection the resulting chancre may appear and be looked upon as a simple fissure with inflamed edges and consequent swelling of the surrounding tissues. Again, suspicions as to the true nature of the lesion are not aroused in the mind of the family medical adviser, on account of the tender age of the sufferer, combined possibly with the reputed respectability of the parents, and thus in its early stage the disease escapes detection.

CASE 1.—A boy ten years of age was brought to the Throat and Nose Department of the Western Infirmary, Glasgow, complaining of swelling of his lower lip and pain on deglutition, with the story of having been so affected for several weeks. The left half of his lower lip was inflamed and swollen, and so tender as to interfere with articulation. The upper surface of the swollen area was eroded, the surface around the erosion was coated with sordes, and the swollen portion of the lip, when grasped between the finger and thumb, felt firm, though not of that hard character—indurated—which is felt at the base of an infecting sore on the glans penis. There were several flat condylomata over the lining membrane of the cheeks at several points, where it lay in contact with the teeth, and there were similar mucous patches on the fauces. Eight months previously to this boy's first visit, his father, bearing well-marked evidences, both local and general, of secondary syphilis, had been under my care at the same dispensary, and the mother, who accompanied her boy, was at the time under treatment for erosions of the tongue and fauces characteristic of syphilis in its secondary stage. Before treatment produced any appreciable improvement in the boy his larynx was invaded, the resulting hyperæmia being followed by the appearance of flat condylomata on both ventricular bands and vocal cords, causing the voice to be rough and husky in character. In addition to the local lesions there was a profuse papular eruption distributed over the body generally; the hair came out in large quantities, and there were languor and loss of colour indicative of the profound nature of the constitutional disturbance.

CASE 2.—A boy aged seven was brought by his mother to the Ear, Throat, and Nose Department of the Royal Hospital for Sick Children, Glasgow, complaining of sore-throat and huskiness of two months' duration. The history given was that five months before he had a profuse eruption over his body, and while so affected he complained of a sore on his lip and "sore throat." The latter, on careful inquiry, proved to have been pain in the neck immediately below the ramus of the jaw and extending to the neighbourhood of the mastoid process on each side, though most severe on the right, and apparently due to some inflammatory enlargement of the glands. Having the parts touched, as in the washing of his neck, and the movements of his head and those of his lower jaw, as in mastication, so increased his discomfort as to cause him to desire to be left quietly alone. His hair at that time became very thin; he lost colour and appeared disinclined for play or exertion in any form. The sore on the right side of the lower lip, which was followed by painful enlargement of the lymphatic glands in the neck, appears to have been the primary lesion, and the infection seems to have been derived from another inmate of the same house. There had been a lodger in the house, and the boy's father, from various circumstances, was led to make inquiries regarding the man's physical condition and learned that he was suffering from "an eruption due to the bad disease," and at once gave him notice to quit. Later I ascertained that both at that time and subsequently this lodger suffered from extensive syphilitic excoriation of his mouth and fauces, accompanied by a well-marked papular eruption over his body. When the boy was first seen by me, all trace of the primary sore had disappeared, but the inner aspect of the lip was extensively eroded, and there were numerous flat condylomata distributed over both anterior pillars, the base of the uvula, and the surface of both tonsils. The laryngeal mucous membrane was in a state of general hyperæmia.

CASE 3.—A girl aged eleven was brought to the Ear, Throat, and Nose Department of the Royal Hospital for Sick Children, Glasgow, complaining of having had a sore throat for nine months. About four months previously her lower lip towards the left angle of the mouth was painful and swollen, but as she was in the habit of biting her lips no special attention was paid to it. As time went on, it became more painful; sores formed within the mouth, she had severe pains throughout her body, affecting the head and the various joints especially, and so aggravated at night as to make sleep impossible, and her hair had latterly been coming out in quantity. There were several condylomata around the anus. On making an examination the left side of the lower lip was seen to be considerably swollen and was eroded extensively on its inner aspect, but no induration could be felt at the supposed seat of infection. There were numerous typical serpiginous mucous patches over the palate, the fauces, and the surface of both tonsils. The submaxillary and cervical lymphatic glands were swollen and tender. As a result of inquiries made to ascertain the source of the infection I learned that months before the father, who was usually a very steady workman, had gone to a *soirée*, and when he returned early on the following morning he was tipsy. A fortnight from that time (one week after intercourse with her husband) the mother experienced smarting on micturition, and later she found on examination the left labium to be swollen and raw on its inner aspect. Within a short time she had a profuse eruption over her body, her lips became sore, and she had a feeling of dryness in the throat and pain on swallowing; her hair came out in handfuls, she had severe pains in her head and limbs, and lately she had sores (condylomata) around the anus.

CASE 4.—The fourth case was that of a girl fourteen years of age and sister to the foregoing patient. Having been told by the mother that her elder daughter had a sore mouth similar to that which the patient described as Case 3 had at the beginning of her illness, I requested that she might be brought to the dispensary in the following week. This was done, and on examination I found the girl to be suffering from a hard chancre, with well-marked induration at its base, on the right side of the lower lip, of six weeks' duration. The submaxillary and cervical lymphatics on the right side were swollen and tender. There was symmetrical erythema of the palate and fauces, with "snail-tracks" over both tonsils. She complained of headache, but there was no eruption over the body. In this case, the fourth member of the family to be affected (father, mother, sister, and herself), there was a typical primary sore accompanied by the earliest manifestations of constitutional syphilis.

Remarks.—In each of the four cases described the site of infection was situated on the lower lip, in two of them the breach of surface was on the buccal aspect, and in one only was there induration at the base of the sore. This departure

from the appearances of the typical chancre should be borne in mind. The poison was in all probability conveyed to the child affected in each instance by a spoon, drinking-cup, towel, or some such article used by the family in common; or it may have been implanted, and possibly was so in the two latter cases which occurred in the same family, by the mother kissing her children; or the younger child, when affected, may have infected her sister in a similar manner. In my experience of acquired syphilis in children the secondary symptoms are much more severe than the average of those encountered in the adult, the poisoning seems to be much more profound, and the larynx is involved in a much larger proportion of cases, and thus huskiness, which is but occasionally met with in the adult during the early secondary stage, is a frequent symptom in children. Lastly, acquired syphilis in the child is much less amenable to treatment than is the disease in the adult. Grey powder, even in comparatively large doses, appears inert, and the most satisfactory results, as far as my experience goes, are obtained from the use of bichloride of mercury in solution and in combination with arsenic. The occurrence of cases like those above described is a disgrace to our civilisation; and the fact that they do occur, and perhaps more often than is supposed, should cause members of our profession to impress upon those suffering from primary or secondary symptoms who may be under their care the necessity of adopting precautionary measures, the nature of which will at once suggest themselves when the readiness with which this far-reaching contagious disease may be spread amongst members of a household is considered.

Glasgow.

SUCCESSFUL ABDOMINAL SECTION, WITH USE OF CARBOLIC ACID, DURING ADVANCED KIDNEY DISEASE.

BY JOHN D. MALCOLM, M.C., F.R.C.S. EDIN.,
SURGEON TO THE SAMARITAN FREE HOSPITAL.

AN oft-repeated argument against the use of carbolic acid as a surgical lotion is that this antiseptic irritates the kidneys. Nevertheless, I have carefully watched the constant use of phenol in abdominal surgery for ten years, and, though keeping its effect on the renal tissue specially in view, I have not seen any case in which a death could be attributed to the action of this drug. On the other hand, when no antiseptic has been used, one of the commonest explanations of fatalities after abdominal section is that the patient's kidneys were diseased and ceased to act. In such cases I believe that the arrest of the renal secretion is often due to septicæmia. It would appear that any injury done to renal tissue by the proper use of carbolic acid is temporary in action and quickly recovered from, even if the secreting tissue be unhealthy; whereas, a small dose of the germs of putrefaction which might easily be excreted by healthy organs is sufficient to set up a dangerous degree of irritation in damaged kidneys. When no antiseptic is used we know that a dose of poison may be absorbed sufficient to cause death by acute suppurative peritonitis after a simple ovariotomy, although the patient's organs are all healthy at the time of operation. A smaller dose of septic matter may readily be admitted into the system if antiseptic precautions be not carefully employed. When this happens, if the kidneys are diseased, the elimination of the micro-organisms is delayed, they gain time to multiply, and acute septicæmia is rapidly developed. It follows that the necessity for the most rigid antiseptic precautions is, if possible, more urgent than usual when an operation is to be performed on a patient whose kidneys are unsound. The precautions which I employ are to take care that everything brought in contact with a wound is quite clean and is dipped in a 2½ per cent. solution of carbolic acid immediately before it is used, the solution itself being applied to divided tissues as little as possible. Of course, other measures, and at times other antiseptics, are necessary if the surgeon has to deal with septic conditions existing before an operation.

The view that carbolic acid is effective as an antiseptic, and harmless when carefully used, is strongly supported by the following history. A single woman thirty-five years old had an attack of severe pain in the right side in February, 1893, when her medical attendant, Mr. Jameson of Chigwell Row, discovered a tumour in her abdomen about the size of a fist. From this time till her admission to hospital on Nov. 28th the circumference of the waist increased from 22½ in. to 30½ in. The patient was thin and anæmic, but her digestive, respiratory, and circulatory systems were fairly healthy. Her menstruation was regular, but very profuse and painful. She had had three attacks of scarlet fever. She said that the first two attacks, at the ages of seven and ten years, were the worst. She considered the third attack, at the age of eleven, a slight one, because she did not become delirious; it was, however, followed by dropsy, and she was ill for six months. She had never been strong, but considered herself quite well till the end of 1892, when she began to suffer from swelling of the feet and legs and from difficulty in passing urine. In August, 1893, the urine had been very dark in colour—almost black—on three occasions in one week. After admission to hospital about fifty ounces of acid urine were passed in twenty-four hours, the specific gravity varying between 1008 and 1015. About a fifth of albumen was deposited by the boiling test. There was a slight sediment which contained pus cells, many epithelial cells of various shapes and sizes, and a few medium-sized granular renal tube-casts. I found a solid tumour in the lower abdomen which seemed to be attached to the fundus of an enlarged uterus or to the inner end of the left broad ligament. It was so movable that it could easily be pushed up behind the left costal margin or into the right loin, but it usually lay on the bladder. As the patient's health was rapidly deteriorating, an operation for the removal of the tumour was recommended and was performed on Dec. 2nd, 1893. The growth was a pedunculated fibroma uteri, the size of a large cocoanut, attached by a fleshy pedicle to the fundus of the uterus and to the left Fallopian tube. I divided the pedicle after securing it by silk ligatures, and a second pedunculated tumour, the size of a sparrow's egg, was removed in the same way from the back of the uterus. There remained several growths embedded in the uterine walls, and I therefore took away both ovaries. The right ovary was adherent in Douglas' pouch, and when I was ready to close the wound I discovered free hæmorrhage from a tag of adhesion at the bottom of the pelvic cavity. This was secured in forceps and packed round with sponges to keep the intestines out of the way whilst I tied it. Unfortunately, a small sponge thus used got lost amongst the coils of bowel, and I only found it after an extensive search, which added greatly to the already formidable amount of manipulation.

Notwithstanding all this, convalescence was particularly smooth and uninterrupted. The temperature rose to 101 4° F. in the vagina and the pulse to 118 eight hours after the operation, and then both gradually fell to normal. On the second day the patient said she felt as if there was "nothing the matter" with her. The bowels gave no trouble at any time. Thirty ounces of urine were passed in the first twenty-four hours after the operation, and its specific gravity rose to 1021. The deposit increased greatly, and quickly became loaded with granular and hyaline casts of all sizes. The number of epithelial and pus cells and the quantity of albumen remained about the same as before the operation. The menstrual discharge which usually follows these operations began on the second day and was very free till the eighth day, when it ceased. It prevented the continuous examination of the urine as regarded quantity, specific gravity, and amount of albumen, but there was no difficulty in detecting tube casts, which were present in very large numbers. After a week the casts gradually diminished in quantity, and on the twentieth day fifty ounces of urine were passed, with a specific gravity of 1006, and depositing about a fifth of its bulk of albumen on boiling and adding nitric acid. There were pus cells and epithelial cells as before the operation, but I could find no casts by a most careful examination. The patient was discharged on the twenty-first day after the operation.

Three months later Mr. Jameson informed me that she was putting on a little flesh and could take long walks without feeling tired. I saw her on March 19th, when the uterus was movable and free from tenderness. Urine was passed copiously. A specimen examined was acid, had a specific gravity of 1010, and showed about an eighth of albumen by the boiling test. Its deposit was very slight in amount and consisted of bladder and other epithelial cells, a few pus cells, and a very few hyaline and granular casts. The difficulty in passing urine was not quite gone, but gave very little trouble, and the swelling of the feet was also much less marked.

In advising a patient with advanced renal disease to submit to a serious operation the responsibility undertaken is very great. The treatment adopted in this case has, however, been fully justified by the event, not only because the patient's health has been improved for the time, but also because an increasing source of aggravation of the renal disease was removed, and the patient's chances of prolonged life have undoubtedly been increased thereby. These results could not have been counted upon if imperfect antiseptic precautions had been used.

Portman-street, W.

A CASE OF BLADDER IN AN INGUINAL HERNIAL SAC.

BY F. A. PURCELL, M.D., M.CH. R.U.I., M.R.C.S. ENG.,
SURGEON TO THE CANCER HOSPITAL, BROMPTON.

IN the review in THE LANCET some time ago of "De la Cystocèle Inguinale rencontrée au Cours de la Kélotomie," by Dr. Henri Bourbon,[1] the author is stated to have collected eighteen cases where the bladder had been found in the sac of an inguinal hernia, and which he details in his memoir, taken from the practice of continental surgeons, no reference being made to any British or American writer. I am therefore induced to record a case in my practice where, in operating for a strangulated inguinal hernia of the right side, in which the bladder was found in the sac and down in the scrotum, the bladder was cut into, and at a subsequent operation the protruding portion was sliced off, and the edges of the bladder were sutured, the patient eventually making a good recovery, thus giving one more lesson of what contents may be found in a perineal sac, and the serious results that may follow from want of appreciating or diagnosing the condition. Much as I regret the misadventure of wounding the viscus, I trust I shall not be censured for reporting the case.[2]

On the evening of Nov. 15th, 1892, I was summoned to see a fleshy, stout-built man of short stature, aged fifty-six, who had for years been troubled with a scrotal hernia, which he was able to return, and who wore a truss. I found him on the present occasion suffering from symptoms of strangulation, no passage from the bowels, straining, vomiting, and excessive pain; no trouble in passing urine was complained of; his usual method of returning the bowel was by standing up and bending well over, doubling up his body and using his two hands, in which position he had never before failed. He tried it again on this occasion, but without success, and remarked there was something more than the rupture. I made every attempt to reduce the bowel and at one time thought I had made some impression, but did not realise that I was pressing urine back out of the bladder, which must have been the case. I failed in the reduction by taxis. I gave him a dose of morphia and sent him into hospital. The following morning I had a consultation with my colleague, Mr. Elam, who assisted me in the operation. We decided to operate. The report of the operation and notes of the case were taken by my late house surgeon, Mr. Sylvester Willard, to whose unremitting attention I wholly attribute the patient's recovery. The patient was anæsthetised, and another attempt was made to reduce the hernia, which failed. The hernia was on the right side, the tumour was resonant on percussion, and a large mass was drawn down into the scrotum. The ordinary incision was made over the swelling and the hernial sac exposed; with a little pressure on the enlarged scrotum the mass was brought outside. The sac was then opened and the gut isolated, the ring divided, and the gut was got back into the abdomen. The mass—as we thought, of omentum—now engaged our attention. No amount of manipulation seemed to produce any effect in its reduction. The surface of the mass appeared to be covered with exuded blood and lymph—so much so that it was deemed not advisable that it should be returned, but that it should be taken away. It was deemed to be omentum, with no bowel engaged. Before going further I made an exploratory incision into the mass from below upwards, on which urine flowed, when it was evident that I had cut into the bladder. A gum-elastic catheter was passed per urethram, whereupon the end showed in the wound and was drawn forwards. Nothing was now left but to secure the open bladder in the position presented, which was attained by suturing each side of the wound of the bladder to the corresponding sides of the abdominal wound by means of silkworm gut; the skin was fitted round, and the remainder of the wound was brought together in the usual manner. A drainage-tube was placed into the wound of the bladder and a winged catheter passed per urethram. Ordinary gauze and wool dressings were applied and secured by bandage.

Nov. 16th.—The patient has had a very good night; he slept well; the dressings are saturated with urine; the catheter had slipped out; he passes a small quantity of urine by the urethra.—17th: Patient in much the same condition; the dressings are saturated; one of the abdominal sutures was removed, which gave exit to pus. A large oil and turpentine anæma was administered, which opened the bowels well.—18th: The other gut sutures were removed; the purulent discharge from the surface was abundant; the patient feels well.—Dec. 14th: All purulent discharge has ceased; the tumour has shrunk. He passes a small quantity of urine by the urethra; the parts look healthy, and the surface is granulating. The abdominal wound is entirely healed and sound.

On Jan. 7th, 1893, the parts were considered sufficiently healthy to make an attempt to close the wound of the bladder. The patient was placed on the table and anæsthetised. I was now assisted by my colleagues, Messrs. Jessett and Elam. The protruding mass of the bladder, about the size of half one's fist, was sliced clean off, the bleeding vessels being tied; the edges of the skin were dissected all round the wound in order to free the flaps, so as to allow of their being brought together, undermining the skin flaps, and their edges being pared; the mucous coat was sutured with chromicised catgut; the integument and muscular coats of the bladder were then transfixed with quill (Halstead's) sutures; when all were passed the parts were pressed together and the sutures tied *seriatim;* the bladder was now filled with tepid water to test the opening; no leakage presented, and it appeared perfectly stanch; the wound was dressed and the parts were supported by a pad and bandage; a winged catheter was passed into the bladder.

Feb. 3rd.—I pass over the intervening daily reports. The wound several times looked as if it would not hold together. When the sutures were removed some trickling of urine occurred; this gradually improved, and now the parts are sound. The wall of the abdomen shows a bulging outwards when the bladder is full, but the prominence subsides on voiding urine. This condition necessitates the supporting pad and bandage, from which he obtains great comfort. During the month the bladder was irritable, as also the urethra, and the catheter was kept in, much against the patient's wish. The bladder was douched out with boracic acid water, and afterwards with quinine solution. He is allowed up, but he is kept under observation to prevent his straining either when at stool or in passing urine. He was discharged well on March 27th, 1893. I have seen him several times since, and he reports himself comfortable.

Manchester-square, W.

[1] THE LANCET, Aug. 26th, 1893.
[2] THE LANCET, April 28th, 1894.

ON EMPYEMA IN CHILDHOOD.

BY J. P. WIGHTMAN, M.R.C.S., L.R.C.P. LOND.,
LATE SENIOR HOUSE SURGEON, INFIRMARY FOR CHILDREN, LIVERPOOL.

EMPYEMA always has been, and always will be, a disease of very great interest and importance: of interest in that discussions on the treatment always give rise to differences of opinion; and of importance in that, so frequently, the presence of pus in the pleural cavity of cases brought to a children's hospital is there found to have been overlooked. The records tabulated below help to show that empyema in childhood is not a very fatal complaint; and, given that an early diagnosis is made and that the correct treatment is adopted, the number of deaths would be very materially diminished. The diagnosis in nearly every case is not a difficult one, the presence of dulness to percussion remaining permanent and perhaps increasing in area, weak respiratory murmur or bronchial breathing heard faintly over this area, occurring in a child, as a rule, after an acute pulmonary inflammation

emphatically justifies exploration by a large exploring syringe and should be repeated from time to time if the physical signs persist and the previous explorations have had negative results. In the following paper I have confined my remarks to cases of empyema occurring in children—i.e., from infancy to twelve years of age. For permission to bring forward the statistics and post-mortem records, and for the use of old notes, I am indebted to the kindness of Dr. P. Davidson and Dr. Marsh, hon. physicians, and of Mr. Murray, hon. surgeon to the Infirmary for Children, Liverpool. During the last ten years there have been admitted to the Infirmary 145 cases of empyema. Of these the result is known of 124. The average duration of admission was 8·8 weeks of the cases marked as cured.

Table of One Hundred and Twenty Cases of Empyema.

Age.	Cured.	Relieved.	Died.	Totals.
Under 12 months..	1	—	2	3
Between 1 and 2 years ..	7	1	7	15
„ 2 „ 3 „ ..	8	1	9	18
„ 3 „ 4 „ ..	13	2	3	18
„ 4 „ 5 „ ..	12	3	3	18
„ 5 „ 6 „ ..	11	3	3	17
„ 6 „ 7 „ ..	10	3	2	15
„ 7 „ 8 „ ..	3	1	—	4
„ 8 „ 9 „ ..	5	—	—	5
„ 9 „ 10 „ ..	1	1	—	2
„ 10 „ 11 „ ..	4	1	—	5
„ 11 „ 12 „ ..	2	2	—	4
	77	18	29	124
Cases contracting scarlet fever				7
Cases taken out by parents				14
				145

The term "relieved" implies a case sent home with some discharge still from the sinus, which usually rapidly closed up after leaving the hospital. The death-rate from infancy to the age of three years, it will be seen, is a very high one—viz., 50 per cent.,—and in this respect tallies with previously published records. After the age of three years the prognosis is much more favourable, and in the 20 cases occurring between seven and twelve years of age there were no deaths. The causes of death in the 29 cases recorded are as follows. On the first twelve cases post-mortem examinations were made:—

Table of Twenty-nine Fatal Cases of Empyema.

No.	Empyema and complications.	Cause of death.
1.	Double empyema.	Exhaustion.
2.	Double empyema; suppurative pericarditis.	„
3.	Double empyema; broncho-pneumonia.	„
4.	Purulent pericarditis and peritonitis.	„
5.	Pericarditis.	„
6.	Purulent pericarditis and peritonitis.	„
7.	Purulent pericarditis.	Syncope.
8.	—	Exhaustion.
9.	Operation in fever hospital; admitted after asepsis had failed.	„
10.	Extensive broncho-pneumonia.	„
11.	Broncho-pneumonia.	„
12.	Cellulitis of chest-wall; septicæmia.	Syncope.
13.	Asepsis failed owing to neglect at home.	Exhaustion.
14.	Double empyema; suppurative pericarditis.	„
15.	Double empyema; broncho-pneumonia.	„
16.	Extensive broncho-pneumonia.	„
17.	Suppurative pericarditis and peritonitis.	„
18.	Extensive broncho-pneumonia.	„
19.	Suppurative pericarditis.	„
20.	Double empyema; broncho-pneumonia.	„
21.	Cellulitis of chest-wall.	Septicæmia.
22.	Suppurative pericarditis.	Exhaustion.
23.	Suppurative pericarditis and peritonitis.	„
24.	Broncho-pneumonia.	„
25.	Empyema ruptured into lung.	„
26.	Pericarditis.	Syncope.
27.	—	Exhaustion.
28.	Suppurative pericarditis.	Syncope.
29.	Empyema ruptured into lung.	Exhaustion.

Seven cases of double empyema were admitted to the infirmary. Of these, 1 recovered and 6 died. In 11 cases there was suppurative pericarditis as a complication; of these, 1 recovered and 10 died. In 4 cases there was suppurative peritonitis as well as suppurative pericarditis; all these cases terminated fatally.

Remarks on immediate treatment.—The administration of chloroform is not contra-indicated, provided that it is carefully given. There is only one case recorded of death during operation where anæsthetisation could be said to have hastened the end, and this occurred where the child was almost moribund when the operation was begun. The use of chloroform allays the child's fears, keeps it quiet, and allows of the major operation, resection of rib, to be at once proceeded with if necessary. Incision and drainage are in the majority of cases quite sufficient. Aspiration for empyema as routine practice in preliminary treatment should be condemned. Drainage by long tubes and valves is in children very unsatisfactory. This form of treatment taxes alike the patience of patient, physician, and nurse; as regards the actual state of affairs one is entirely in the dark, and the most that can be done is to live in hope from day to day.

Remarks on after-treatment.—There are no hard-and-fast rules for the after-treatment of cases of empyema. This must be conducted on ordinary surgical principles. Each case is a law unto itself. A child who at the beginning looks as if he had the slightest hold on life will often be running about before another child, who looked comparatively healthy, is out of bed. The indications for syringing out should be offensive discharge, unhealthy appearance of the wound, or elevation of temperature. In decreasing the size of drainage tubes when the cavity is closing up it is better to substitute a smaller size of drainage tube, the same length as the one removed, rather than to cut the larger tube short. It is a useful antiseptic precaution to have two tubes in use, one always kept in antiseptic lotion, and to use them on alternate days. Plenty of light, pure air, careful nursing, and easily digestible food are of the first importance; also a moderate amount of stimulant, preferably port wine. During the last winter twenty old cases of empyema were sent for and seen at the infirmary. The children were either attending school or following some trade, and almost invariably no difference in physical signs could be discovered between the two sides of the chest. A point of interest in the after-treatment is the rapid increase in weight of patients convalescing from empyema—some of them, in fact, getting too fat.

Rawdon, Yorkshire.

A CASE OF

BELL'S PARALYSIS FOLLOWING HERPES ZOSTER; RECOVERY.

BY NAOROJI B. DARABSETH, M.B., C.M. ABERD., M.R.C.S. ENG.

ON Jan. 4th a Hindoo patient aged thirty-five came for advice for vesicular eruptions on the right half of his face, neck, and chest. According to the patient's history the eruptions were noticed on the right side of his chest on Dec. 28th, 1893—i.e., eight days before he came under my observation—and extended upwards to the neck, then behind the ear, and lastly over the face. They were first said to be red and swollen like the bite of a mosquito, slightly raised above the skin and of a solid feel, but began to fill with fluid after two or three days. It took four days for them to extend from the chest along the neck to the side of the face, and they were all out by Dec. 31st—i.e., within four days of the commencement of the attack. No fresh eruptions were noticed after that. The eruptions were accompanied by febrile symptoms, but there were no premonitory symptoms. On the fourth day, when the eruption extended to the face, there were swelling of one side of the face and tingling pain in and below the ear, behind the angle of the lower jaw. He had had no previous attack of herpes and had never suffered from ear complaint before. He could not assign any exciting cause for the eruption. On examination the vesicles in the neck, about thirty-five in number, were seen to extend from the lower border of the jaw to as low down as the clavicle, and in front from the median line of the neck to the margin of the trapezius muscle behind. In the chest the eruptions were situated in the fourth intercostal space in front and behind, and followed the course of the fourth intercostal nerve. On the head they extended from the angle of the jaw upwards, behind the ear, over the mastoid prominence, to the skin over the temporal region, and then on to the forehead. There were also four vesicles over the cheek in a line corresponding to the buccal division of the facial

nerve. The eruptions were all vesicular, containing a clear, watery fluid, except a few in front of the thorax which were just beginning to dry up. There was diminution of cutaneous sensibility of the affected part as when compared with the healthy side. The patient felt the sharp prick of a needle as a blunt point. He complained of a burning sensation and numbness all over the affected part, and tingling in and below the right ear, with occasional sharp shooting pain in it. The eruptions varied in size from a pin's head to a small pea. They were all distinct and had no tendency to run into each other. Whilst the patient was telling his history it was quite apparent that he had marked facial paralysis, but curiously he was quite unconscious of it until his attention was drawn to the fact. He had more or less complete paralysis of the right side of the face. He was unable to close his right eye when told to do so. The right half of the skin of the forehead was smooth and shining. He was unable to knit the forehead or raise the eyebrows of the affected side. When he smiled or talked one side of the face remained expressionless, and the mouth could not be pursed up to whistle. He was unable to blow or spit properly, and the cheek puffed out on forcible expiration. There was marked diminution of cutaneous sensibility on the affected side of the chest, neck, and face. There was no flattening of the arch of the palate or any deviation of the uvula. The patient complained of tingling pain in and about the ear, but there was no disturbance in hearing. On examination the ear was found to be healthy, though the skin about the external meatus was slightly swollen. The right half of the face was swollen and looked bigger than the left side. The sense of taste was impaired, everything tasting insipid. Food collected between the teeth and the right cheek, and he was obliged to remove the collected food with his fingers. No exact date of the paralysis could be fixed, as he was quite unconscious of it until now, but he said that food had been collecting in the mouth for the last three days, and as the eruptions came out eight days before and attacked the face on the fourth day it is probable that the paralysis came on the day after the eruption appeared on the face.

Jan. 6th (i.e., on the tenth day): The whole of the eruptions on the chest and some on the neck and face have dried up.—12th: The scales have all dropped off. The facial paralysis is improving. He was able to close his eye to some extent, but still unable to whistle, and food still collects in the mouth. He is able to raise his eyebrows to some extent.—19th: The patient is much better. He is able to whistle, and food does not collect in the mouth. The eyes could be closed, but the skin over the eyelids could not be thrown into folds on strongly closing the eyes. There is still tingling in the ear, but no shooting pain.—24th: The patient has wholly recovered, and there is no sign of his former paralysis. He can firmly close both his eyes and can work all the muscles of his face with ease. There is no pain in the ear. The eruptions have all disappeared, leaving no cicatrices or scars, but deeply pigmented marks in place of the vesicles. There is still slight anæsthesia over the pigmented area, though not so marked as before.

Facial paralysis rarely follows an attack of herpes zoster of the face. There is one similar case quoted by Dr. Fagge, where it came on twenty-four hours after an attack of herpes zoster, the patient recovering after a lapse of several months. My case is of interest from the fact that though paralysis was complete he recovered from it perfectly within twenty-eight days from the commencement of the herpes. There was no history of exposure to cold, and he never suffered from ear disease. The pain in and below the ear was, I think, in the root of the facial nerve rather than in the ear itself. The pain was increased by deep pressure behind the ramus and the angle of the lower jaw, but the movement of the ear itself did not cause any pain. The paralysis may be of a reflex origin, but I should think it was a kind of neuritis from the nature of the pain. It is said that when herpes zoster affects the face it is more liable to leave permanent scars behind it. There were no marks left in the above case except the pigmented spots where the eruptions first appeared.

Bombay.

SANITARY INSTITUTE CONGRESS AT LIVERPOOL.—Dr. Thomas Stevenson, F.R.C.P., Scientific Analyst to the Home Office, has consented to act as president to Section III., Chemistry, Meteorology, and Geology. Dr. Edward Klein, F.R.S., has consented to act as president to Section I., Sanitary Science and Preventive Medicine.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

AN UNUSUAL CAUSE OF COMPOUND FRACTURE OF THE LEG.

BY H. E. WRIGHT, L.R.C.P. EDIN., M.R.C.S. ENG., J.P.,
DISTRICT SURGEON, UMVOTI COUNTY, NATAL.

I HAVE recently met with a case of severe compound fracture of the tibia and fibula caused in such an uncommon manner that I have thought it worthy of record.

A man twenty-four years of age, of good physique and weighing about ten stone, was riding a bad-tempered horse on Jan. 10th last. On arriving at the edge of a precipitous hill the animal commenced to buck, at the same time rushing madly down the decline of the hill, which, to use the patient's own words, was "nearly as perpendicular as a wall." The rider was thrown violently on to his feet, and still retained hold of the reins. No sooner had he alighted on his feet than he fell down, and he became aware that his right leg was broken. He had on a pair of thick moleskin trousers, through which the tibia protruded for a good two inches. The patient said he alighted fairly on his feet and never struck any stone or other obstacle in his fall. I saw him about four hours after the accident, when he had been removed to his home and placed in bed. I found the right foot twisted outwards and a lacerated wound bleeding freely on the antero-internal aspect two inches above the inner malleolus. Through this wound two inches of the tibia protruded. The bone was broken transversely, and was not splintered. Under chloroform I carefully washed the end of the bone and the wound with hyd. perchlor. lotion, reduced the fracture, and put in a couple of sutures to make the wound less extensive and gaping, covered all with iodoform, and dressed and put up the limb in a back splint with foot-piece and two side splints, the inner one being bracketed. The wound healed in six weeks with little traumatic fever, and with the exception of a piece of necrosed bone in the lower fragment repair went on uninterruptedly. The patient has been up and about with the limb encased in plaster of Paris for the past three weeks, and I am only waiting for the sequestrum to become loose in order to remove it. I think the case worthy of record on account of the rarity of the cause.

ENTERIC FEVER COMPLICATED WITH DIPHTHERIA; TRACHEOTOMY; RECOVERY.

BY WILLIAM GAYTON, M.D., M.R.C.P. EDIN.,
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A BOY eight years of age was admitted to the North-Western Fever Hospital on Feb. 7th, 1894. He had then been ill five days, complaining of pain in the abdomen and head. On admission the temperature was 104° F. The abdomen was distended, but not tender, and there were no spots. The tongue was dry and fissured; a few râles only were to be heard over the lungs. The temperature kept high, having a distinctly remittent type, and reached its highest point on the evening of Feb. 14th, when it was 104·6°. Spots first appeared on the 10th. The bowels throughout were rather confined and the abdomen at one time was considerably distended and tender. On Feb. 20th a harsh cough and hoarseness were observed, the temperature still being raised and oscillating between 101·6° and 103·6°. On the 21st, as there was marked stridor, the patient was put into a steam tent and poultices were applied to the throat. Two days later the lower ribs were slightly retracted. The fauces were inflamed, but no membrane could be seen. As the breathing and retraction became rapidly worse, on the 24th tracheotomy was performed. No membrane was seen at the time, but the dyspnœa was very much relieved. There was a trace of albumen in the urine. The next day some exudation was removed by feathering and on the 26th a large cast of the trachea came away, the wound being very septic, with a foul-smelling discharge. A large mass and several smaller pieces of membrane were removed during the next two days. On March 1st the wound was cleaner, no more membrane was

ejected, and as the trachea showed the natural pink colour the tube was removed for six hours. The temperature now began to decrease and the abdominal symptoms improved, but fine crepitations were heard at the base of the right lung. On the 2nd the tracheotomy tube was finally removed. A week later the albuminuria had disappeared and uninterrupted improvement ensued. On April 20th the patient left the hospital for a seaside convalescent home. The incidence of diphtheria during the course of enteric fever must be extremely rare, Sir William Jenner, Murchison and others who have written on the subject not mentioning its occurrence. The above case is interesting in the fact that there was recovery even though tracheotomy was necessary.

ANASARCA IN THE PUERPERAL STATE DUE TO PRIMARY SYPHILIS.

By ALFRED KEBBELL, M.R.C.S. ENG.

A WOMAN twenty-four years of age, married about six months, five months pregnant, was first seen by my assistant on Nov. 2nd, 1893. He diagnosed pregnancy with albuminuria, and gave a careful prognosis. She was ordered seven minims of tincture of iron, three times a day. On the 4th the patient was in the same condition, but the anasarca had increased. On the 6th I was asked to see her. I found her in the following condition: the anasarca was extreme, the face puffy, and the arms and hands swollen. The legs and thighs were so swollen that it was almost impossible for her to walk. She hardly dared to lay down. She had never been well since she married. She had suffered from sore-throat and headache, and rash on the skin. Her hair, which was very abundant, was all falling off. Her appetite was bad; the urine was scanty and highly albuminous. On seeing the woman I remembered that I had attended her husband during a severe attack of syphilis ten months previously. The throat was still sore, the hair nearly all fallen off, and there were scattered over the body the remains of a syphilitic rash. I had never seen such a case before, and was in doubt as to the best treatment to be pursued. Mention of syphilitic puerperal anasarca does not appear in any published work that I have examined. Mr. Pridgin Teale, to whom I afterwards mentioned the case, kindly drew my attention to the article of the Paris correspondent of THE LANCET of Dec. 23rd, 1893: "At a meeting of the Société de Dermatologie et Syphiligraphie, M. Gastou exhibited a patient upon whose abdomen a sore, diagnosed as a hard chancre, had appeared in July, 1893, the infection being alleged to have been due to contact of a pustule (from pediculosis) with soiled sheets. The sore was situated about two centimetres above and to the left of the umbilicus, and had the appearance of an elliptical cherry-red ulceration covered with granulation, with raised hard edges, and measured six centimetres long by four broad. The axillary glands were enlarged. About mid-November, with the roseola there appeared anasarca involving the whole body, the face excepted; the urine was scanty, thick, and high coloured, and contained albumen in the proportion of one gramme eighty-seven centigrammes to the litre. Under the influence of an exclusive milk diet and iodide of potassium the œdema disappeared. M. Gastou rejects the theory of albuminuria *a frigore* or of mercurial origin, the patient having only taken mercury for six days. Although the man was addicted to alcohol, M. Gastou believes the albuminuria to be an unusually early manifestation of the action on the kidneys of the syphilitic virus." In my case the albuminuria could not have been of mercurial origin, because the patient had not then taken any mercury. The interest in the case centres in the pregnancy. I ordered a milk diet, complete rest, and warmth, and the following mixture was given: pot. iodid., two scruples; spt. am. ar., four drachms; tinct. cinch. co., half an ounce; aqua to eight ounces; two tablespoonfuls to be taken three times a day. A one-grain mercury and chalk pill to be taken three times a day. On the 8th there was decided improvement in all the symptoms. On the 11th the patient was still improving; she could walk much more easily. She said that she began to improve after taking the first dose of the medicine. From this date she continued to improve, and by Nov. 20th was practically well and able to attend to her household duties, but she continued under my care until Dec. 4th, when she left the neighbourhood. I saw her husband in March last, and he said his wife was quite well.

Flax'on, Yorks.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum propias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

TWO CASES OF "SUPPURATIVE EPIPHYSITIS OF INFANTS," IN WHICH UNCOMMON LESIONS WERE FOUND.

(Under the care of Mr. OWEN and Mr. PITTS.)

THE following two cases present points of considerable clinical interest. In each case the ends of the diaphyses of several ribs, and in one case both clavicles, were affected. In both cases the disease followed closely after suppuration in certain cutaneous sores. We do not purpose adding more to the remarks on these cases than will suffice to give Mr. Battle's other reasons for regarding these cases as not pyæmic, as a rule, in their typical examples. The patients usually die from exhaustion, and if there is any internal inflammation, such as pneumonia, it does not present the character of inflammation due to pyæmic infarcts. The percentage of recoveries is much higher under appropriate treatment than that obtaining in pyæmia. For the notes of the cases we are indebted to Dr. C. F. Marshall, surgical registrar.

CASE 1.—An infant aged four weeks was admitted to hospital on Feb. 7th, under the care of Mr. Edmund Owen. An acute abscess involved the lower third of the left thigh, and another was present above the ankle of the same limb. There were also two small subcutaneous abscesses in the palm and little finger of the left hand. These abscesses developed a few days later, suppuration occurring in cutaneous sores on the arm. The abscesses were opened, flushed, and drained, but the child died two days afterwards. The post-mortem examination showed that the abscess above the knee led to bare bone at the diaphysial surface of the lower epiphysial cartilage of the femur, and the end of the diaphysis was in a condition of acute osteo-myelitis. There was no actual cavity in the bone, and the knee-joint was not involved. The abscess above the ankle led to bare bone at the tibial diaphysis, which was partially necrosed and surrounded by a good deal of new bone. The ankle-joint was not involved. There was a similar condition of the sternal ends of the third right and fourth left ribs and of the spinal ends of the seventh and eighth ribs, in each case the end of the rib being necrosed. There was also in this case purulent meningitis affecting the convexity of the brain, but no other sign of pyæmia was present.

CASE 2.—An infant aged six weeks was admitted to hospital on Jan. 5th, under the care of Mr. Pitts. In this case, also, the disease followed a few days after inflammation and suppuration in some cutaneous sores. There was an acute abscess above the left clavicle, and another above the left knee. On opening the former abscess the entire diaphysis of the clavicle came away as a sequestrum, which lay loose in the abscess cavity. The femoral abscess led to a cavity in the region of the epiphysial cartilage, which contained a small sequestrum. The knee-joint and shoulder-joint were not involved. The child died five days afterwards. The necropsy revealed necrosis of the acromial end of the right clavicle, suppuration in the acromio-clavicular joint, and necrosis of the sternal end of the fourth rib on the right side and of the spinal end of the eighth rib on the same side. Subpleural abscesses were found in each case.

Remarks by Dr. MARSHALL.—The affection first described by Mr. Thomas Smith as "acute arthritis of infants," afterwards called "acute suppurative epiphysitis," and more recently considered to be a diaphysitis, has in many cases been regarded as of a pyæmic nature, although in most instances it is difficult to trace any pyæmic origin of infection. In the two cases described above the origin of infection was apparently due to the septic

condition in the cutaneous sores. It is a curious coincidence that the ribs were affected in each case, and also remarkable that in one case both clavicles were involved, these bones being very rarely affected in this disease. Mr. Battle, in a report on some cases in the Transactions of the Pathological Society, 1891, came to the conclusion that the disease was usually of the nature of an osteo-myelitis affecting the end of the diaphysis, but that it might in some cases begin in the epiphysial cartilage. This conclusion is also borne out by the above cases, where the end of the diaphysis was evidently the part primarily affected in each instance, and this has likewise been the case in most cases that I have had the opportunity of examining; although sometimes, as Mr. Battle remarks, the epiphysial cartilage appears to be the part first affected. He does not regard the disease as primarily pyæmic, although it may give rise to pyæmia; his chief reason being apparently that it does not affect the joints themselves—at any rate, primarily. The two cases reported above, however, appear to be of a primary pyæmic nature, and the objection that the joints themselves were not involved is not, I think, a strong one. It is not at all remarkable that the regions of the epiphyses and growing ends of the diaphyses should be the places first seized upon by the pyæmic virus, for they are situations where active growth and metabolism are taking place. It is, no doubt, true that in the milder cases of the disease, where one epiphysis only is affected (many of which recover), no pyæmic origin may be traceable, and that these are possibly of a nature different from cases such as the two reported above; in fact, until cultivations from the pus are made from a long series of cases of varying degrees of severity, it is impossible to say that the disease is always due to one and the same cause, and it is quite possible that there may be several causes giving rise to the affection. For permission to publish the cases I am indebted to Mr. Edmund Owen and Mr. Bernard Pitts.

Supplementary remarks by Mr. Owen.—Dr. Marshall having shown me his notes before sending them to THE LANCET, I take the opportunity of saying that, in my opinion, they constitute a valuable addition to the literature of acute septic osteo-myelitis. In remarks appended to a somewhat similar case reported in THE LANCET some time ago[1] I suggested that the septic inflammation is usually preceded by an injury which has lowered the vitality of the bone and thus left it a prey to lurking micrococci. Dr. Marshall's reports show clearly a direct association between the acute diaphysial disease and an antecedent septic condition. I have recently had under my care in St. Mary's Hospital two other cases of acute septic para-epiphysitis in which the dependence of the disease on virulent micro-organisms was amply demonstrated. The first was that of a little boy with an abscess just below the upper tibial epiphysis. It had implicated the knee-joint, and the boy was so ill that amputation of the thigh had to be resorted to in order to save his life. My house surgeon, Mr. C. B. Hall, made thrust-cultivations in gelatine and obtained a growth which quickly produced liquefaction of the medium, and on being stained and photographed it was seen to consist of swarms of micrococci. In a second case of para-epiphysitis of the upper end of the tibia which I saw on an emergency with another house surgeon, Mr. Edgar Morgan, he and I became the media for cultivation experiments without our knowledge or consent. The abscess was small and hard; it was so firmly locked beneath the periosteum that it gave no evidence of fluctuation. The pus was indeed under very high tension, and when I thrust in a knife some of it spurted on to my wrist, and a little, as I noticed, into Mr. Morgan's face. In a few days a crop of pustules appeared upon my wrist, and I then remembered the incident in connexion with the opening of the abscess. On asking how the house surgeon was I learned that he was the subject of acute purulent ophthalmia, for which he was being treated by nitrate of silver and by boracic acid irrigations; till he heard that I was asking after him, however, he had no knowledge whatever of the way in which he had been infected. Para-epiphysitis, "epiphysitis," or, as it may be called if it be examined in a later stage, "arthritis," is one of the most acute septic diseases of infancy and childhood. Many of the subjects of it die outright, especially infants (as in Dr. Marshall's reports), and of those who recover many have a stiff joint or several joints wrecked by pyæmia, while others get well at the expense of a limb.

[1] THE LANCET, March 4th, 1893.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.

TWO SUCCESSFUL CASES OF OPERATION FOR SEVERE ABDOMINAL INJURIES.

(Under the care of Mr. ROBERT JONES.)

PENETRATING WOUNDS of the abdomen are not now so frequently treated on the expectant plan as was formerly the case. The importance of following up the wound and making it aseptic as far as possible is recognised as necessary, even though the viscera be not wounded. Dr. H. Gage[1] collected, with Dr. Larini, a series of 272 cases of wounds and injuries of the liver; of these, 164 were due to direct violence—that is, to punctured or incised wounds or to gunshot; of these, 54 belong to the former, and 44 per cent. proved fatal. Of the causes of death, hæmorrhage and peritonitis were the most common, though it was difficult to estimate the exact numbers; hæmorrhage was probably responsible for 20 per cent. of the deaths, and there can be little doubt that Mr. Robert Jones's case was only saved by the operation from a similar fate. In 15 instances loss of the liver substance was caused by the wound, and in 12 the piece was found projecting from the wound, in 9 it was cut off, in 3 it sloughed, whilst in all recovery ensued. The problem set before the surgeon, then, in penetrating wounds of the abdomen, with wound of the liver, is to arrest hæmorrhage and prevent peritonitis. This must be done by gauze packing or suture of the wound and a thorough cleansing of the parts, not necessarily involving excision of the edges. As Dr. Dalton[2] has observed, the surgeon must explore thoroughly, he must go to the bottom of the wound; it will not do to trust the "tactus eruditus"; nor will it do to trust to the patient's general condition as an estimate of the gravity of the condition. Dr. Walton has seen many instances of gunshot and stab wounds being borne with seemingly no perturbation, when in fact the patients were fatally injured.

CASE 1.—*Penetrating wound of liver; profuse hæmorrhage; laparotomy; recovery.*—On Aug. 18th, 1893, the patient, a young man eighteen years of age, stumbled whilst at work and was stated to have fallen against a knife so fixed that it projected horizontally for some inches beyond the edge of his work table. On examination an oblique incised wound about two inches in length, situated immediately below the right costal margin and in the middle line of the abdomen, was found. The knife had penetrated the peritoneum. It was decided to explore the abdomen, and the wound was enlarged vertically to about three or four inches. The abdominal cavity was found absolutely full of blood-clot, and on examining the upper surface of the right lobe of the liver a wound was discovered one and a half inches in length and three-quarters of an inch deep, which was bleeding profusely. The surfaces of this hepatic wound were brought together by catgut sutures, which at once stopped all hæmorrhage. To clear the abdominal cavity of blood-clot was an extremely difficult matter, as it seemed moulded and adherent to the viscera, and the position of the parietal wound was not favourable to cleansing or draining the pelvis. The operators spent a considerable time in flushing the abdomen with boric solution, but only with partial success. A drainage-tube having been introduced, the edges of the wound were brought together, and the patient was wheeled to bed. After the operation he was kept under the influence of opium, and nothing else was given him excepting iced water to relieve his thirst. The subsequent events may be described in Dr. Woods' own words:—"Second day after the operation: No bad symptoms. The man complains of slight abdominal pain. During the night the drainage through the tube ceased, six ounces of blood having been drained. The temperature is 100·4° F.—Third day after operation: The patient is jaundiced. The temperature rose in the afternoon to 103·2°, when the tube was removed. The temperature fell in the evening to 101·8°, and to 99·8° next morning." From this time all the symptoms gradually improved, and the jaundice disappeared; the patient being discharged well in three weeks from the time of admission.

CASE 2.—*Penetrating wound of abdomen, involving pleural cavity; laparotomy; recovery.*—On Sept. 9th, 1893, the patient, a boy eleven years of age, climbed six feet from the ground on to a wall. A little companion who was with

[1] Boston Med. and Surg. Jour., vol. i. 1892.
[2] Journal of the American Med. Association, Nov. 18th, 1893.

him pushed a stick, about an inch in diameter, but tapering slightly at its point, up one leg of his trousers. While this was being done the patient lost his hold and fell upon the stick, which penetrated the abdominal wall and travelled seven or eight inches. A passer-by, with very considerable difficulty, withdrew the stick. On admission to hospital the patient showed evidence of considerable shock. The pulse was rapid and feeble, and the temperature subnormal. The respiration was rapid and shallow, and rhonchal fremitus could be felt over the base of both lungs. There was no hæmorrhage. It was found that the stick had entered the abdominal wall just internally to the left external abdominal ring, wounding the base of the penis, and had passed vertically upwards beneath the skin, almost in the middle line, till it all but reached the xiphoid cartilage. Here could be felt a tumour about the size of a walnut, firm, dull on percussion, giving a slight impulse on coughing, and exquisitely tender. When Mr. Jones arrived he decided to cut down on the tumour; consequently a vertical incision about three inches in length was made at this spot, and an omental hernia exposed and reduced. On exploration it was found that the stick, deflected by the costal margin, had passed upwards over the liver and through the diaphragm into the pleural cavity. Through this opening the index-finger could be passed quite easily. The abdominal viscera being unwounded as far as could be ascertained, the peritoneal cavity and the track of the stick were thoroughly washed out with boracic lotion, and the operation wound was sutured with silkworm gut. A drainage-tube was inserted in the track along which the stick had travelled, and antiseptic dressings were applied. An hour after the operation (10 P.M.) the temperature was 100° F., the pulse 130, and the respiration 40. The collapse was considerable, the pulse at first being scarcely perceptible at the wrist. One-sixth of a grain of morphia was hypodermically administered, and five minims of tincture of opium were given every four hours and two drachms of brandy every two hours. The temperature rapidly rose; at 12 o'clock it was 101°, at 2 A.M. 103·4°, and at 3 30 A.M. (five hours after the operation) it registered 104·8°. On examination at this time a loud friction sound was heard at the base of the right lung, and great pain and tenderness were complained of there. The respiration (68) was shallow, and the little fellow had a dry cough. Sinapisms were applied to the chest, and three grains of carbonate of ammonia were given every three hours. Later in the morning the symptoms improved, and the temperature fell to 101°; in the evening, however, it again rose to 105°, with an exacerbation of all the symptoms. On the 11th the temperature again fell and in the evening became normal. On the 12th, in less than three days after the operation, he appeared to be convalescent. Four days later (the 16th) the temperature again rose to 102°. He coughed and expectorated fetid pus. There was no dulness or other sign of effusion in the pleural cavity, and the pus apparently issued from a localised abscess at the base of the lung. The wound was dressed and found to be aseptic. The expectorations of pus and rise of temperature continued for three days, then wholly ceased, and the patient has since progressed favourably and is now quite well.

I have to thank my house surgeon, Dr. Woods, for the very accurate notes and for the care and interest he took in this little patient.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

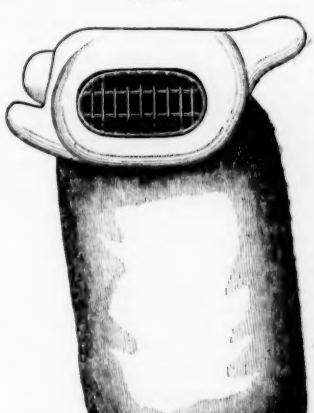
Operation for Subcutaneous Rupture of the Intestine.—Apparatus for use after Inguinal Colotomy.—Intestinal Obstruction treated by Cæcotomy, Enterectomy, and Closure of Artificial Anus.

AN ordinary meeting of this society was held on April 30th, Sir WILLIAM DALBY, President, being in the chair.

Mr. BATTLE read a paper on an Operation for Traumatic Rupture of the Intestine without External Wound, founded on a case. The paper appears in full in our present issue, see p. 1121.—Mr. CROFT said that there was no class of case which called for more resource on the part of the surgeon. In the fourteen cases he had tabulated he had been much struck by the loss of time which had taken place before the operation had been performed; early operation was certainly one of the elements of success. In the case which had been related, where the injury was so severe, it was difficult to decide whether to cut out the bruised intestine or not. He agreed that in future it would be wiser to resect such damaged bowel. There was no doubt that the mesenteric injury led to loss of vitality of the portion of intestine operated on, and so to giving way of the stitches. In his experience of these cases he had found no one symptom on which the surgeon could rely to determine him on opening the abdomen at once, but regard should be paid rather to the combination of symptoms which were found.—Mr. HERBERT ALLINGHAM referred to the case of a child aged seven who had been run over by a cab. Little was to be seen of the injury when inspecting the abdominal wall, but other symptoms present induced him to open the peritoneum. He then found that a piece of small intestine, a foot in length, had been torn from its mesenteric attachment. He stopped the bleeding and sutured the intestine again to the mesentery. Four days later the case proved fatal, and it was then found that the piece of intestine which had been detached had become gangrenous.—Mr. BATTLE, in reply, said that he did not excise the damaged portion of intestine, because the patient was so exhausted from the length of the operation; he, therefore, simply turned the edges in. He agreed that there was no one symptom constant, but those of most importance were severe paroxysmal pain in the abdomen and vomiting.

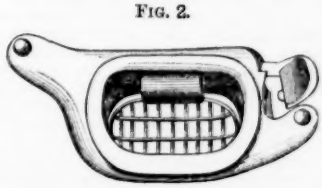
Mr. MACREADY read a paper on an Apparatus for use after Inguinal Colotomy. The several requirements in such an instrument were enumerated as follows: (1) that it be of moderate size; (2) that it should not be liable to displacement; (3) that it should prevent the exit of solid fæces and prolapse of the bowel; (4) that it should provide for the escape of discharges which sometimes flowed up from the diseased surface and came away from the lower opening at the false anus; and (5) that it should allow the patient to empty the bowel when the motions were fluid without retiring, as no truss would keep in fluid. The instrument, invented by

FIG. 1



View of the instrument from the abdominal side.

FIG. 2.



View of the instrument from the outer side without the reservoir. ⅔

a patient of Dr. Charles Savory, consisted of two principal parts—a plate of xylonite, resting against the false anus, and an indiarubber reservoir. The plate, which was of a rhomboidal figure, was held in position by attaching an elastic belt (or a truss spring) at the lesser angles of the rhomboid. This device gave much stability to the instrument. The reservoir was fixed at the outer surface of the plate in such a manner that it could be instantly detached and easily readjusted. The false anus communicated with the reservoir by an oval opening in the plate. This opening was filled up by a grating of thick, gilded wire. Thus fluid discharges were able to escape into the reservoir, but solid fæces from the intestine could not. The patient could empty the bowel, when the motions were fluid, by means of an arrangement which allowed him to open the grating and thus make a free passage between the bowel and reservoir. The instrument was made by Mr. Gustav Ernst.

Mr. HERBERT ALLINGHAM read a paper on a case of Intestinal Obstruction treated by Cæcotomy, Enterectomy, and Closure of the Artificial Anus. The patient was a man aged thirty, who was admitted to hospital on Jan. 9th, 1893. For two years there had been constipation, and for six months the obstruction had to be relieved by purges. For the ten days previous to admission there had been no action of the bowels, and for two days before there had been vomiting; the abdomen was distended and tympanitic. On Jan. 11th the peritoneum was opened in the mid-line, and the cæcum and small intestine were found to be enormously distended. The cæcum was then drawn into the wound and opened, and fæcal matter came away, more than two quarts escaping. The cæcal wound was sutured to the abdominal wall, and the patient recovered, the bowels acting regularly by the artificial anus. On May 29th he presented himself again, being greatly improved in health, though fæces were constantly running away. With a view to remove the cause of obstruction, on May 31st a five-inch incision was made along the left linea semilunaris, and a hand introduced encountered in the descending colon a stricture, which was excised together with a portion of intestine on each side of it, the colon being afterwards joined over a Mayo Robson's bobbin. This wound had healed on June 9th, and on the 14th the artificial anus was closed, the cæcum being first freed from the peritoneal attachment and then the orifice pared, closed by suture, and dropped back again. This wound likewise healed firmly by June 21st. On Sept. 15th he was readmitted with abdominal pain and sickness, and on the 24th the peritoneum was again opened and found to be studded with numerous hard nodules of secondary carcinomatous growth. Death took place on Nov. 9th, and the growth was found microscopically to be a spheroidal-celled carcinoma of a very fibrous structure.—Mr. HARRISON CRIPPS said that if a case of intestinal obstruction presented itself, with the general symptoms pointing to the large gut as its seat, and palliative measures had failed, he advocated, in the first place, opening the abdomen, as for colotomy, in the left inguinal region. Some obstructive condition might be encountered and dealt with from this opening, or a left colotomy might give relief. But, if not, the wound on the left side should be closed and the cæcum opened on the right side. It should be remembered that excision of a stricture would not of itself of necessity relieve the patient, the obstruction remaining owing to paralysis of the bowel. The opening of the cæcum would relieve the patient, and a more radical operation might be undertaken later under more favourable conditions. A year ago he brought before the society two cases illustrating this point. In one of these, in an old woman aged eighty, the removal of the obstruction did not relieve the patient until the cæcum was opened. In the second the obstruction was never found, and if the cæcum had not been opened the patient might have perished in the search for the obstruction. A small opening should be made in the cæcum, which should be attached to the peritoneum only. It would be very difficult to attach it to the skin in a fat patient.—Mr. ALLINGHAM, in reply, said that, having made the opening into the cæcum, he would now use a small Paul's tube, which should be tightly tied into the bowel, and to this a rubber tube could be attached to drain the cæcum into a receptacle beneath the bed. If this plan were adopted there would be no necessity for stitches, or at most only one or two. In doubtful cases the small intestine should always be searched in order to discover if the stricture might not be in that portion of the alimentary tract.

CLINICAL SOCIETY OF LONDON.

Amnesia with Right Hemiplegia in a young Hysterical Woman.—Muscular Dystrophy.—Popliteal Aneurysm followed by Embolism of Posterior Tibial Artery and Gangrene of Foot.—Facial Hemiatrophy.—Unusual Form of Peripheral Neuritis.—Multiple Cutaneous Fibrous Nodules associated with Rheumatism.—Black Tongue.—Meningocele over Posterior Fontanelle.—Subluxation of Knee-joints.—Mode of making Extension in Fractures of Femur.—Intestinal Obstruction due to Constriction of Bowel after Appendicitis.—Laparotomy in Acute Intestinal Obstruction and Peritonitis.

A CLINICAL MEETING of this society was held on April 27th, Mr. HULKE, President, being in the chair.

Dr. HABERSHON showed a case of Amnesia with Right Hemiplegia in a young Hysterical Woman. The patient was a woman aged twenty-two who at the age of sixteen, being extremely anæmic, suffered a severe shock from fright and after this developed violent attacks of hysteria, swallowing a quantity of hair, sticks, stones, &c. In 1893 she fell down suddenly and completely lost consciousness, and after this she was unable to speak. When Dr. Habershon first saw her in January, 1894, there was an aphasic condition complicated by indistinct utterance of letters and words. She was also to some extent hemiplegic, completely hemi-anæsthetic, and hemi-analgesic, without affection of the special senses. At the present time a partial amnesia remained, which was a residue of the previous attack. He thought it possible that there was an organic lesion present of thrombotic nature, complicated with functional hysterical manifestations.

Dr. HALE WHITE exhibited a case of Muscular Dystrophy. The patient was a man aged twenty-two, who, when aged seven or eight, had an illness of obscure nature, was in bed for some weeks, and could not walk afterwards. He presented complete atrophy of the muscles of the leg, and most of the muscles of the body were also involved. The case was interesting in that it combined the "facial" and "scapular" types of muscular atrophy. The infra-spinatus muscles were very large. The muscles of the abdomen and hip seemed to have escaped and were well developed. The bones had ceased to grow and were much undersized, probably because the muscular stimulus to development was lacking. There was no family history of muscular atrophy.

Mr. R. J. H. SCOTT showed a case of Popliteal Aneurysm followed by Embolism of the Posterior Tibial Artery and Gangrene of the Foot. The patient was a groom aged thirty-three, who fourteen years ago was thrown from a horse and sustained a bruise of his left leg. Three years afterwards a left popliteal aneurysm developed, and for this Mr. Pick tied the femoral artery in Scarpa's triangle. Three years ago the aneurysm, which had shrunk, began to increase again in size, and in January, 1894, whilst running, he felt a sudden pain in the calf of the left leg, and signs of embolism of the posterior tibial artery developed. On Feb. 22nd the aneurysm was cut down on, the artery tied above and below, and the sac dissected out; on laying it open it was found to contain a pasty, chocolate-coloured substance. Later a Chopart's amputation was performed to remove a limited gangrene of the left foot

Dr. ROSE BRADFORD showed a case of Facial Hemiatrophy. The patient was a girl aged fifteen years and six months, who in September last developed neuralgic pain along the left lower jaw, and later a blue patch formed over the left malar bone; since then the attacks of neuralgia became more frequent. There was now a wasting confined to the area of the left superior maxilla, and most marked in the subcutaneous tissues. There appeared to be some signs of optic neuritis present, but there was no extensive loss of sensation and no wasting of the tongue.

Dr. CARR showed a case illustrating an Unusual Form of Peripheral Neuritis. A boy aged eleven was seized last October with severe pain and tingling in the hands and feet, and he remained in bed a month. The pain gradually subsided, leaving paralysis of both hands and both feet. The paralysis was complete and symmetrical; there was no affection of sensation and no tenderness of nerve trunks. The diagnosis lay between peripheral neuritis and anterior poliomyelitis.

Dr. CAYLEY showed a case of Multiple Cutaneous Fibrous Nodules associated with Rheumatism. The patient was a boy aged twelve, who after playing football was seized with pains in his joints, and a systolic murmur developed at the

cardiac apex. The cutaneous nodules present resembled the "erythema elevatum diutinum" of Crocker, and one of the nodules excised and examined microscopically was found to consist of fibrous tissue.

Mr. EVE showed a case of "Black Tongue" in a man aged sixty-four. There was a thick patch of the size of a half-crown piece situated in front of the circumvallate papillæ, and it had existed for two or three months. Raynaud had suggested that the condition was due to a fungus, and cultivations had been made from the case exhibited to see if an organism could be discovered.

Mr. EVE also showed an infant aged three months with a Meningocele over the Posterior Fontanelle.

Mr. H. B. ROBINSON exhibited an infant aged fourteen months with Subluxation of the Knee-joints. There was great laxity of the ligaments, permitting the tibia to be displaced outwards and rotated forwards.

Mr. BARWELL read a paper on a Mode of making Extension in Fractures of the Femur. He explained that he had devised this method as far back as 1860 for use in hip disease. The apparatus consisted of an ordinary Liston or Desault splint, long enough to reach from the axilla to three or four inches below the foot. To each prong of the fork at the lower end metal arms were screwed, so that these, coming together, supported, below the centre of the sole, a pulley half an inch in diameter at the flange. At the angle of the gap between the two prongs there was another pulley merely to prevent friction. Quite at the upper end and projecting about an inch from the outer surface of the splint was a third, rather larger, pulley. To use this apparatus a strap, two inches broad, of adhesive plaster on strong calico, was applied to the limb so that the ends were just below the knee on the inner and the outer side, while the centre formed a loop below the sole. A piece of strong catgut was attached to the centre of this loop, passing thence downwards under the first-named pulley, thence upwards over the pulley at the angle of the fork, and terminating short of the centre of the splint on its outer aspect. Turning to the upper end of the splint, a perineal band was applied, preferably to the sound side, though on the present occasion he demonstrated it as applied on the fractured side. This band included both limb and splint; its ends were stitched together, being some little distance below the above-described third pulley. Here a piece of catgut was attached, which, passing at first upwards through the pulley, changed its direction and ran thence downwards towards the catgut which was fastened to the foot. They both, however, stopped short of meeting; to the upper piece a length of brass chain was fastened, and to the lower one an inch of rubber accumulator with a hook attached, which, being hitched into any one length of the chain, determined and preserved any degree of tension on the india-rubber spring. The splint was now secured by a broad girth and a few laps of roller to the limb. The special value of the appliance lay in the constancy of the force and in the uniformity of direction.—Mr. HULKE said that the splint exhibited resembled one devised by Mr. Campbell de Morgan many years ago. The present apparatus did not obviate the rotation of the limb in its long axis.—Mr. BARWELL stated, in reply, that he used sandbags to prevent rotation, and these when placed in position did not interfere with the extending force, as was the case when weight extension was used.

Dr. LAUDER BRUNTON and Mr. WATSON CHEYNE communicated a case of Intestinal Obstruction due to Constriction of the Bowel after Appendicitis. The patient was a man aged thirty-five who had suffered from attacks of appendicitis for some years. Thirteen days before the operation he was seized with sudden, acute, griping pain in the abdomen, the attack lasting about an hour and then passing off. Similar attacks occurred at varying but frequent intervals, the bowels, however, being open throughout, though imperfectly. Thirty-six hours before the operation he took a dose of castor oil, which set up acute pain and was followed by complete obstruction. Twenty hours after the onset of this attack he fell into a condition of profound collapse. Thirty hours after taking the dose of castor oil he had fæcal vomiting, and when placed on the operating table his pulse could not be felt. The diagnosis was narrowing of the bowel from gradual contraction of fibrous tissue, resulting from repeated inflammatory attacks, and this diagnosis was confirmed at the operation. When the abdomen was opened the appendix, which encircled the cæcal valve, was removed, and the adhesions were cut or torn through until the contents of the small intestine could be readily squeezed into the large. The operation was carried out under ether, and after it was over the pulse was still imperceptible, and the patient lay in a collapsed, pulseless condition for nearly thirty hours after the operation, without, however, any vomiting or marked pain; he then had two copious and very offensive stools. He continued very collapsed for a time and then rallied, and when seen thirty hours after the operation his pulse had greatly improved. His subsequent recovery was uninterrupted, and he had since remained well. The points of interest in the case were the diagnosis and the treatment of the collapsed condition of the patient. The chief difficulty in the diagnosis was from internal strangulation, but the history of the case and the general symptoms seemed to point conclusively to constriction of the bowel, as was found at the operation. The complete success following the division of the adhesions was of great interest from the fact that this condition was generally irremediable after localised peritonitis, on account of its extent and the injury to the bowel wall, which usually followed attempts at separation thereof. The collapsed condition of the patient was clearly due to septic intoxication from absorption of poisonous material from the intestine, and it afforded strong evidence of the view held by some that a considerable amount of the trouble after strangulated hernia was often due to similar absorption.

Mr. SILCOCK read notes of a case of Acute Intestinal Obstruction and Peritonitis, in which Laparotomy was performed, and the small intestine incised and drained above the seat of obstruction, with a favourable result. The patient was a man aged twenty-six, who was admitted to St. Mary's Hospital on Sept. 26th, 1893, suffering from acute intestinal obstruction and peritonitis. The intestines were greatly distended, the abdomen generally being tender, the vomiting frequent, and the ejecta having a fæcal odour. He was seen shortly after admission by Dr. Luff, who deemed an exploration necessary. On opening the abdomen in the middle line below the umbilicus a small quantity of turbid serum escaped. The vascularity precluded any search for the possible source of obstruction. The man's condition at this point became so alarming that the operation was abandoned, the wound being hastily stitched up and the man removed to the ward. The next morning the patient had recovered from the extreme collapse, and he opened up the central part of the wound, made a small incision into a prominent coil of small intestine, and through this incision he thrust the cannula of a suction trocar furnished with a long indiarubber tube leading to a basin below the bed. This was held in position for forty-one hours and a half by relays of dressers, and a large quantity of fluid intestinal contents came away, to the evident relief of the patient. The vomiting and hiccough ceased, and the pain was relieved. After the withdrawal of the cannula the wound in the intestine was closed, but it subsequently reopened, emitting much fluid intestinal contents. From the character of the latter it was judged that the ileum had been tapped. On Sept. 30th the patient passed a motion per rectum, and by Oct. 9th the intestinal fistula had closed. He was discharged cured on Nov. 8th. The cause of the peritonitis was unknown. The patient had had no trouble with his bowels since his discharge.—Dr. GLOVER asked what dose of strychnine had been administered.—Dr. BRUNTON replied that it was given very frequently, in very small quantities of two minims at a time, and was repeated until the respiration and circulation began to show symptoms of recovery. The patient had been so extremely depressed before this that he appeared *in articulo mortis*.—Mr. GOLDING-BIRD said that the wonder was that intestinal obstruction did not more frequently follow appendicitis. He referred to the case of a man aged thirty who for fifteen years had suffered from attacks of local distension in the right iliac fossa, followed by relief and a discharge of pus with the fæces. Latterly he had been attacked about once a month with constipation and general discomfort in this region. On opening the abdomen he found a mass of intestine coiled round the cæcum, and the latter hour-glass-shaped from adhesions. The appendix was small and was adherent in its whole length along the cæcum. He tore through and divided the cæcal adhesions, leaving the appendix, and the patient, who made a good recovery, had since remained well.—Mr. EVE commented on the value of cocaine as a local anæsthetic in these cases. He found that thirty minims of a 2 per cent. solution injected under the skin rendered the abdominal wall anæsthetic in its entire thickness.—Dr. HALE WHITE referred to the case of a woman with

empyema following a subphrenic abscess, probably connected with the spleen, who was admitted in an extremely collapsed state. The friends refused to allow any operation further than an aspiration, and this was performed, much fæcal-smelling pus being removed. When this was done an immediate improvement in the pulse was noted, and she lived for three days afterwards.

PATHOLOGICAL SOCIETY OF LONDON.

Tuberculous Ulceration of Large Intestine.—Tuberculous Disease of Ovaries and Fallopian Tubes.—Carcinoma of Neck.—Alcoholic Neuritis.—Primary Cancer of Lung.—Disease of Sweat Glands.—Diaphragmatic Hernia.

AN ordinary meeting of this society was held on May 1st, Dr. PAVY, the President, being in the chair.

Dr. NORMAN MOORE exhibited a specimen of Tuberculous Ulceration of the Large Intestine. Large patches of ulceration, in which abundant tubercles were present, were to be seen throughout the colon. There was no ulceration of the small intestine, nor was there any other deposit of tubercle in the abdomen. The only other seat of tubercle in the body was the right lung. The patient was a soldier aged twenty-four, who died in St. Bartholomew's Hospital. His illness originated in a cold caught while camping out at Aldershot in July, 1892, and lasted till February, 1894. On Nov. 16th, 1892, he had right pneumothorax, soon followed by liquid effusion. Paracentesis was performed nine times, thirty-six pints nine ounces of fluid being drawn off in all, and, finally, parts of three ribs were removed by Mr. Harrison Cripps in the hope that contraction of the chest might put an end to the continually recurring effusion. The necropsy made by Dr. Moore showed that the pneumothorax was due to rupture of a small tuberculous cavity in the right lung, which had later become closed. Besides the distribution of the tubercle, which was confined to the right lung and large intestine, the case was remarkable in the facts that the effusion throughout fourteen months never became purulent, that diarrhœa was absent throughout, and that the temperature was always normal or subnormal.—Dr. SAMUEL WEST said he had a similar case under treatment at the present time, the resemblance being in the number of times that paracentesis had been performed. The patient was now nearly well, though the fluid had not yet altogether disappeared. The case was not only remarkable for the number of times that tapping had been done, but also for the length of time the fluid had remained serous.—Dr. MOORE, in reply, said that in his case there was no clear evidence to show that tubercle was present, and this was a factor in favour of the employment of operative measures.

Dr. HABERSHON showed a case of Tuberculous Disease of Ovaries and Fallopian Tubes communicating with the Bladder and Intestines. The patient was a young unmarried woman aged twenty who was admitted into the Brompton Hospital under the care of Dr. Green in August, 1893. There was a history of cough and expectoration for two years. The catamenia had ceased for twelve months. For nine months she had complained of abdominal pain and diarrhœa, while for six months previous to admission there had been rapid emaciation. The mother probably died from phthisis. The patient was anæmic and emaciated. She presented signs of consolidation at the apices of both lungs, rather more extensive at the left side, but ill-defined and without crepitation or other adventitious sounds. The abdomen was not tender or distended, and when she first came under observation there was no pain, nor could any tumour or fluid be detected. There was considerable diarrhœa. Early in September the abdominal pain returned, with a rise of temperature, and the abdomen became distended, tympanitic, and somewhat rigid; the pain was localised in the right iliac fossa, but there was tenderness in the epigastric region. During the next month the abdominal symptoms subsided, to return again with greater violence in October. Diarrhœa persisted throughout the entire illness. The pain was less in November, and there was less tympanites, but towards the end of the month ascites was first observed, while the physical signs in the lungs were very slowly advancing. The ascites increased, but was never extreme, and the abdominal pain continued, with occasional exacerbations. No tumour was discovered, and the patient was believed to be suffering from tuberculous peritonitis. Early in December the patient complained of headache; there was no vomiting, but well-marked signs of meningitis supervened, and she became gradually unconscious, and died in a comatose condition on Dec. 19th. At the necropsy there was found to be old inflammatory disease, with adhesions of the pleural, pericardial, and peritoneal serous membranes. In addition there were many tubercles upon the surface of the liver and in places on the peritoneal surface of the small intestine. There was meningitis upon the convex surface of the brain and patches of lymph with miliary tubercles about most of the main vessels, but chiefly the middle cerebral trunks on both sides. The cortical substance in the neighbourhood was softened. There was no disease at the base. There was consolidation of the upper parts of both lungs, which were infiltrated with old pigmented fibroid tubercle, with some puckered scars, while the bases of both lungs were deeply engorged and contained numerous miliary tubercles. The liver, spleen, and kidneys contained many miliary tubercles scattered throughout their tissues. On opening the abdomen, which contained six pints of serous fluid, a large globular tumour was seen in the right pelvic region and firmly fixed to the pelvic wall behind. It was found to be an enlarged and suppurating right ovary. The tumour was of the size of a cricket-ball and was fixed to the right margin of the uterus, a thickened, convoluted, Fallopian tube being glued to its anterior surface by adhesions. The communication with the uterus was sealed by old adhesions, but the posterior end communicated by a sinus with the cavity of the ovarian cyst. A loop of the ileum about one foot from the cæcum was fixed to the anterior wall of the tumour by a thick, fleshy adhesion passing between the portions of the coiled Fallopian tube. This adhesion was hollow, and led by a funnel-shaped depression from the bowel (the mucous membrane of which was ulcerated at this point) by a sinus into the ovary. A suppurating tract between the tumour and the pelvic wall behind the thickened peritoneum communicated with the bladder through its posterior wall, which was drawn by adhesions to the right of the median line. The left ovary was of the size of a walnut, also suppurating in the centre, some pus from which was examined and found to contain tubercle bacilli. This smaller tumour was also fixed to the uterus and to the Fallopian tube, also to the sigmoid flexure, which was perforated at this point. On close examination the sinus was found to pass through the anterior wall of the Fallopian tube and out through its posterior wall into the cavity of the ovary. The left Fallopian tube was also enlarged and thickened, but longer than the right. It extended backwards across Douglas's pouch, and its posterior end was fixed to the rectum by numerous firm adhesions. A deep depressed scar in the mucous membrane of the rectum showed traces of old ulceration, and formed a funnel-shaped pocket which tracked down to the Fallopian tube but did not communicate with it. There were a good many old tuberculous ulcers in the intestines, and there had evidently been extensive ulceration or inflammatory disease of the ileo-cæcal valve, the aperture from the ileum to the cæcum being extremely small and barely admitting the tip of the little finger. During the whole history of the case, however, there had been no symptoms of obstruction, diarrhœa continuing throughout the illness.—Dr. CULLINGWORTH said that the researches of Dr. Williams of the Johns Hopkins Hospital had shown that tuberculous disease of the Fallopian tubes was not so rare as had been supposed. In this affection there was a tendency to form communications with the neighbouring viscera, and such a condition would be very difficult to deal with on the operating table. There was a communication between an intra-peritoneal collection of pus and the bladder, the track between the two passing close beside the cervix uteri, through the entire thickness of the broad ligament. Twelve months ago he operated on a suppurating cyst in Douglas's pouch which communicated with the bladder, and he had been much puzzled to know how the communication had taken place.—Dr. FYFFE had some time ago shown a specimen of tubercle of the Fallopian tube which had been discovered post mortem. The patient died of phthisis, but there had been no abdominal symptoms during life.—Dr. HABERSHON, in reply, said he thought that in his case the abscess cavity lay behind the peritoneum on the wall of the pelvis, and that the pus reached the bladder beneath the peritoneum. The disease of the ovaries gave rise to no symptoms; at least, if present, they were masked by the coexisting peritonitis. He had seen in the post-mortem room several instances of tuberculous disease of the Fallopian tubes which had given rise to no symptoms during life.

Dr. ROLLESTON showed a specimen of Dense Fibrous

Growth surrounding the upper inch and a half of the Trachea and Œsophagus, which had so narrowed them as to necessitate tracheotomy and gastrostomy. The growth was white, and to the naked eye resembled scar tissue; it surrounded and compressed the vessels and nerves of the neck. The trachea was ulcerated, but this was probably due to the pressure of a tracheotomy tube which had been worn for one month. There was no ulceration of the œsophagus. Microscopically the growth was a scirrhous carcinoma. The case was interesting as no ordinary primary growth of carcinoma was present. The trachea, œsophagus, and thyroid gland did not appear to have been primarily affected. There might have been some exceptional origin, such as an accessory thyroid gland or persistent branchial cleft; but there was nothing to suggest such a view. There were no secondary growths in the body. The specimen was removed from a man aged forty-six years, a patient under Mr. Pick in St. George's Hospital, who had had gastrostomy performed seven months, and tracheotomy one month, before death.—Mr. BOWLBY said that he placed a similar specimen in St. Bartholomew's Museum some years ago. The patient had gradually increasing dyspnœa, and he died later of bronchial trouble. All the parts in the neck were infiltrated, the vessels running through masses of growth. The thyroid gland was extensively involved, and the disease seemed to originate there. Microscopically there was a dense old fibrous growth, with a few carcinoma cells, like the specimen shown.—Mr. WILLETT said he had also examined a tumour of the neck which turned out to be carcinoma. On section it resembled a mass of lymphatic glands secondary to squamous-celled carcinoma.—Mr. SHATTOCK asked if the disease was believed to originate in a lymphatic gland or as a primary tumour of the neck. Mr. Butlin had referred to these cases as abortive primary growths, with secondary gland affection, and the growth in this respect resembled what was known to happen in regard to tubercle. He had himself examined a case similar to that related, but he could not convince himself that it involved a lymphatic gland.—Mr. BOWLBY said he had seen a woman who was suffering from a tumour in the groin which began in a lymphatic gland, and which ulcerated and ultimately caused death. The cut surface of the tumour was like epithelioma, and on microscopical examination it proved to be a typical squamous-celled carcinoma, with cell-nests such as might have followed epithelioma of the skin. A careful search, however, failed to reveal the presence of a primary growth.—Dr. ROLLESTON, in reply, said that in his case there was nothing to suggest the origin of the growth in a lymphatic gland.

Dr. TOOTH showed specimens of Alcoholic Degeneration of Nerves. The patient was a woman aged thirty-four. She had been feeling generally ill for six months, with morning sickness. The first symptom of nerve trouble was formication in the soles of the feet with rapidly increasing paralysis of the lower extremities one month before death. Subsequently there developed numbness of the fingers, weakness of the arms, and dull, aching pains in the legs, the pains being occasionally severe and of a lancinating character. Rapid wasting of the muscles of the legs followed, with loss of knee-jerks and of reaction to faradaism. The objective loss of sensation was slight, except of the soles of the feet. After admission to hospital there was a nocturnal rise of temperature to between 101° and 102° F., but it was normal in the mornings. The patient died quite suddenly while sitting up in bed. The post-mortem examination revealed early cirrhosis of the liver, with enlargement of the spleen; the kidneys were granular. The spinal cord and anterior and posterior nerve roots were normal. All the peripheral nerves examined showed a high degree of degeneration. In each fasciculus were many degenerated and also many normal fibres. The myeline of the degenerated fibres was completely disorganised, presenting the appearance of black masses of all shapes and sizes by the Weigert-Pal method of staining. By the use of nuclear stains there was found a considerable increase of nuclei. Not only were there more of the proper nuclei of the endo-neurium, but also a considerable number of cells resembling inflammatory nuclei. There did not, however, appear to be any proportion between the amount of nuclear increase and the amount of degeneration, the latter being more than the former would warrant. The epi- and peri-neurium presented no appearance whatever of inflammation.

Dr. W. K. FYFFE showed a specimen taken from a woman who was an in-patient at Victoria-park Hospital under Dr. Clifford Beale. The whole of the upper lobe of the right lung was converted into a solid mass of cancer, and scattered throughout the substance of the lung were numerous nodules of new growth, varying in size from a racquet-ball to a bantam's egg. These deposits did not follow the bronchi particularly, nor were they obviously invading the root of the lung; they were more numerous at the periphery. The whole of the lower lobe of the left lung was converted into an enormous abscess cavity surrounded by masses of ulcerating growth. The apex of the left upper lobe was affected in a similar way to the right. There were secondary growths in the brain and kidneys, but no primary growth elsewhere. It was assumed that the growth in the lungs was primary and that it had begun at the base of the left lobe, where the most extensive mischief was seated. Under the microscope the growth was found to be extremely vascular. In parts of the tumour there was an alveolar structure, the cells themselves were distinctly epithelial, and an occasional nest-cell was found. In other parts the fibrous nature of the stroma was much less marked, and the alveolar structure was absent. The question to be determined was whether the growth was sarcoma, carcinoma, or the so-called endothelioma. Its vascularity, and the fact that it was atypical, militated in favour of the theory of sarcoma; its alveolar structure and the epithelial nature of the cell-growth pointed to carcinoma. Finally, it more closely than in either of the above cases resembled the descriptions given of endothelioma, its structure being that of a growth characterised by much proliferation of the endothelium, with the presence of "nest cells" and an alveolar arrangement of its fibrous stroma. If this were an endothelioma it could not have arisen from the pleura, but from the endothelium of the bloodvessels or lymphatics.

Mr. CECIL BEADLES showed a small Hyperplastic Growth from the Sweat Glands taken from the right pinna of a man aged seventy-one years. The pinna was the seat of an ulcerating epitheliomatous growth of the size of a shilling piece, and the growth shown existed between the cartilage of the ear and the base of the epithelioma. It was a solid mass of cells closely resembling the glandular epithelium of the sweat duct and differing greatly in character from the cells of the epithelioma.

Mr. C. S. JAFFE exhibited a specimen of Congenital Diaphragmatic Hernia. In this specimen the left half of the diaphragm from the costal margin to the middle line was elevated into a sac. The wall of the sac was thin and membranous. During life it was cone-shaped and contained the spleen, stomach, and omentum. The specimen was taken from a child that lived forty-three hours, and only six hours before death showed signs of dyspnœa. Post mortem there were evidences of bronchitis and pleural effusion on the right side. In English and foreign medical literature he had only found twelve other similar cases; two specimens were found in fœtuses, two in children, and the remainder in adults. In eight of the twelve cases the pouch was on the left side. Two of the cases were recorded in the Transactions of the society.

The following card specimens were shown:—

Dr. ROLLESTON: (1) Carcinoma of Liver; (2) Stenosis of Bronchi.

Dr. CYRIL OGLE: (1) Tuberculosis of Ureter; (2) Prolapse of Ureter.

OTHER METROPOLITAN MEDICAL SOCIETIES.

EPIDEMIOLOGICAL SOCIETY.—A meeting of this society was held on April 18th, Dr. J. F. PAYNE, President, being in the chair.—Dr. CAIGER read a paper on the Coexistence or Close Succession of two or more Infectious Diseases in the Same Individual. Though Murchison had clearly taught the contrary, the doctrine of John Hunter that "all diseased actions were simple" and that two specific diseases could not coexist seemed to be generally held as a rule, the exceptions to which were extremely rare. Dr. Caiger's experience at the Stockwell Fever Hospital had, however, convinced him that such concurrence was as frequent as was reconcilable with probabilities. In the last four years he had seen 362 cases of two and 14 of three diseases running, in part at least, their courses concurrently; in a number the second infection occurred during convalescence, but in 200 the febrile stages of two or three actually coincided. The priority of the several diseases was

determined by the date of the infection, calculated from the known incubation periods of each; but in several instances it was almost impossible to say which, if either, was contracted first. The primary disease was scarlet fever in 197 cases, complicated by diphtheria in 97, by varicella in 43, by measles in 31, by whooping-cough in 13, by erysipelas in 10, by enteric fever in 2, and by typhus fever in 1. Scarlet fever occurred as a complication in no fewer than 88 out of 97 cases in which the primary disease was diphtheria, in 20 among 23 of varicella, 14 out of 17 of whooping-cough, 6 out of 9 of enteric fever, and 9 out of 18 of measles, though here diphtheria accounted for another seven. Among the triple attacks, 17 in number, scarlet fever was the primary disease in 9, and a complication in 4 only, diphtheria holding the highest place with 9. Two questions suggested themselves: (1) whether the susceptibility of the individual to any one disease was affected by the presence of another, and (2) whether the course of either the primary or the secondary disease was modified in any way by the phenomena of the other. During the last six years 48,367 cases of scarlet fever had been admitted to the hospitals of the Asylums Board; of these, 3166, or 6·54 per cent., were complicated, 1094 with diphtheria, 899 with varicella, 703 with measles, and 404 with whooping-cough, these four highly infectious diseases accounting for 3100, or all but 66; and the relative position of whooping-cough and diphtheria was due to the fact that, while many of the children had already had whooping-cough as infants, diphtheria was a disease which might, and, indeed, tended to, recur. Besides this the condition of the mucous membrane of the fauces &c. after scarlet fever, or after any ulcerative sore-throat, often teeming with staphylococci, streptococci &c., was specially favourable to the development of the specific microbe of diphtheria, Löffler's bacillus. The liability of scarlet fever patients to measles and to varicella was about equal and probably not greater than that of other children of like ages; the same might be said of other specific diseases, while the different age incidence and seasonal prevalence of enteric fever and scarlet fever made their conjunction a matter of rare occurrence. Diphtheria patients were in like manner specially susceptible to scarlet fever, a fact possibly connected with the common phenomena of faucial inflammation and suggestive of local infection, although there was not any such relation between the local manifestation and the virulence of the general infection as there was in diphtheria. Patients suffering from measles were in like manner, and probably for the same reason—viz., a weakened condition of the respiratory mucous membranes—very apt to contract diphtheria, whooping cough, and scarlet fever, but he could not say the same of any other fevers. As to any modification of the phenomena of one specific disease by the concurrence of another he might say once for all that the incubation periods were entirely unaffected; and the same remark applied to the course and symptoms of the developed diseases which might be manifested side by side; but it constantly happened that, while a disease, which, like chicken-pox or whooping-cough, was unattended by serious constitutional disturbance, in no way influenced the features of another that followed, however closely: those that were naturally of a graver character and tended to weaken the power of resistance imparted to the subsequent diseases a severity rarely, if ever, observed under ordinary conditions. Thus scarlet fever following varicella differed in no way from the same disease when occurring alone; but varicella following scarlet fever might rival unmitigated small-pox in intensity and gravity. Here, as in diphtheria following measles, the second disease found the organs or tissues it specially affected prepared for it, as it were, by the former, and it was this that made diphtheria following scarlet fever even more fatal than scarlet fever after diphtheria; but these cases should be carefully distinguished from those of simple scarlet fever, in which a pellicle or exudation, not very unlike that of diphtheria, appeared on the tonsils during the height of the inflammation, and which were first described by Professor Henoch of Berlin under the name of "Scharlach-Necrose." It swarmed with staphylo- and strepto-cocci, but did not contain Löffler's bacillus and was soon followed by superficial ulceration or even deep sloughing, whereas the "false membrane" of diphtheria tended to rapid extension to the mucous membranes of the air passages, and in the post-scarlatinal form to recurrence at intervals for several weeks. Either disease lessened the constitutional resistance to the other, but scarlet fever, not being, like diphtheria, originally a local infection, did not gain so much in severity through the condition of the throat. Measles supervening on scarlet fever was marked by an earlier eruption, the rash appearing usually within twenty-four hours of the catarrhal invasion, by persistent staining of the skin, and by a great tendency to grave lung complication; but there were cases of simple scarlet fever in which the eruption simulated that of measles. Diphtheria following measles almost always involved the larynx, and tracheotomy was rarely of service An intercurrent attack of measles sometimes suspended the paroxysmal cough for the time, and the combination of diseases was very apt to be followed by broncho-pneumonia, &c.—Dr. COPEMAN, speaking as a bacteriologist, said that there was not a shadow of evidence that any disease exerted the least protective influence against any other unless, as in the case of vaccination, it was a modification of the same. The part played by local conditions in favouring infection was well shown in tetanus, which would be of infinitely greater frequency were it not for the special local conditions requisite for its successful inoculation.—Dr. GOODALL thought that Dr. Caiger had called attention to a most important question, and one on which text-books were silent, in the influence of the general and local conditions induced by one disease on the susceptibility of the individual to infection by other diseases, and on their character and complications, but otherwise he believed that the frequency and succession of these diseases was determined by their respective age incidence, seasonal prevalence, &c. He referred to the danger attaching to scarlet fever in tuberculous persons and discussed some difficulties in the diagnosis of diphtheritic affections. — Drs. PARSONS, HOPWOOD, BULSTRODE, and WILLOUGHBY took part in the discussion, and the PRESIDENT showed a Temperature Chart of Enteric Fever, with intercurrent Scarlet Fever, the sustained elevation and morning rise of which, being superposed, effaced for a time the characteristic curve of enteric fever.

HUNTERIAN SOCIETY.—At the meeting of this society on April 25th, in the discussion on Diphtheria, Dr. NEWTON PITT said that in defining what we mean by diphtheria it is not sufficient to describe it as a disease characterised by manifestations in the throat, or even as a throat affection associated with the formation of membranes, for such membranes may be due to traumatism or to the presence of staphylococci and streptococci, especially in presence of scarlet fever and measles. It may be perhaps defined to be an epidemic infective membranous form of sore-throat often associated with nephritic changes and followed by the development of peripheral neuritis. Now, the "sore-throat" may take the form of mere injection of the mucous surfaces, or there may be tonsillitis, or membranes may be seen. The question is, Are the milder forms of sore-throat ever followed by the characteristic neuritis? The question as to whether the slighter forms of sore-throat which often prevail during outbreaks of diphtheria only precede or are themselves diphtheritic must for the present remain open. The view that many of these slighter forms of sore-throat are really due to the action of a specific bacillus is steadily gaining ground; many membranous throats, however, only yield cultures of streptococci or staphylococci, while others, in the absence of any membranous formations, show the bacillus. This uncertainty as to what constitutes diphtheria explains how it is that so many outbreaks escape repression, and it also leads to confusion in the nomenclature. Dr. Thorne Thorne has pointed out the tendency of diphtheria to prevail in association with certain meteorological conditions, although it is pretty generally conceded that insanitary conditions *per se* are not sufficient to produce diphtheria any more than typhoid fever or cholera; insanitary conditions, however, are probably only a means of favouring the propagation of the disease.—Dr. GOODALL said that diphtheria may be defined as an inflammatory disease primarily of the tonsils or fauces, attended by the formation of some sort of deposit, and frequently, though not necessarily, associated with the formation of a special membrane due to the development of a micro-organism and associated with certain secondary effects due to the absorption of toxines. Membranes are thus not made an essential feature. As a matter of fact, he believes it may be unaccompanied by any deposit whatever, for he has repeatedly met with cases in which the usual secondary effects were observed without any trace of exudation. There may thus be diphtheria with, and diphtheria without, membranes. We have to ask ourselves whether there is a non-specific membranous laryngitis and a non-specific membranous inflammation of the fauces. He only said that he had never come across a case, in which the so-called diphtheritic paralysis followed, in which the

fauces were not previously affected. For practical purposes he is disposed to accept as diphtheria all cases of membranous sore-throat in the absence of some other cause, such as scarlet fever. If there be any local spread the disease is almost certainly diphtheria, and, if it involves the larynx, then it is certainly diphtheria. Diphtheria sometimes seems to occur as a complication of other acute diseases. The two specific fevers with which he has seen it most associated have been scarlet fever and measles, though he has met with it in association with whooping-cough, and once with typhoid fever. On only three occasions had he seen it in association with small-pox. Of course any one acute disease may complicate any other, but when this is the case the origin of the second disease can usually be traced to a definite source. No one of these diseases predisposes to any other, and the occurrence of one of them as a complication is quite accidental. Diphtheria differs, however, in two respects—viz., its occurrence in association with scarlet fever and measles is too frequent to be merely accidental; and it is often quite impossible to discover any history of possible communication. Scarlet fever is a disease for which diphtheria seems to have a special liking, and there is a certain similarity between the early symptoms of both of them. They are prevalent together and are sometimes so intimately connected as to give rise to the belief that they are one and the same disease. The tendency of diphtheria to complicate convalescence from scarlet fever is well known. He has over and over again seen patients brought from the same house, some with scarlet fever and some with diphtheria. It is absolutely necessary to distinguish between diphtheria and a diphtheritic sore-throat, for the use of the latter term tends to confuse the points at issue. We often see a tough thick membrane in scarlet fever, and it remains to be seen whether its occurrence is a mere coincidence. This is a very important point, because if this membrane be diphtheritic it is obviously dangerous to place children suffering from simple scarlet fever in the same ward as those who have the disease associated with this particular form of sore-throat. Personally he is inclined to view this complication in scarlet fever as a consequence of a very severe angina. First, the larynx is very rarely involved in this form. Out of 68 cases of scarlet fever with diphtheritic fauces, in only 3 per cent. was the larynx affected; whereas in 1071 cases of primary diphtheria croup was observed in 204 cases. Only 3 of the 63 cases developed paralytic symptoms, whereas 125 of the other series did so. Again, the membrane which forms in the course of an attack of scarlet fever does not recur when once it has disappeared. Lastly, these cases of scarlet fever with a diphtheritic throat do not give rise to other cases of diphtheria in the ward. When undoubted diphtheria does occur in scarlet fever patients it is much more fatal than primary diphtheria. He has had ten cases of patients admitted suffering from diphtheria bearing evidence of a recent attack of scarlet fever. It would be interesting to know whether this is frequently observed in private practice. Though he had alluded to the fact that diphtheria occurs as a complication of measles, he has never seen it supervene in association with rötheln, or German measles. When diphtheria does occur in association with measles it is more fatal than when it complicates scarlet fever. Out of 15 cases of measles thus complicated 14 died. The membrane usually appears much earlier than in scarlet fever, very often while the rash is still out, and the larynx was affected in 14 out of 15 cases. Cases of uncomplicated measles may give rise to cases complicated with diphtheria. Of 1064 patients with scarlet fever 27 got post-scarlatinal diphtheria—viz., 1·5 per cent. Dr. Sweeting, on a series of 11,000 cases, gives 3·3 per cent., whereas out of 128 cases of measles 15 were complicated with diphtheria, or 11·7 per cent. Among his own cases—41 patients with primary measles—6 were complicated with diphtheria. The frequency with which diphtheria occurs as a complication during convalescence from scarlet fever is said to be because this is a disease accompanied by throat inflammation predisposing thereto, but this plausible explanation is not borne out by facts. It is rare in diphtheria to get a history of a previous attack of sore-throat. If the scarlet-fever throat predisposed thereto, diphtheria would be more frequent in this association than it is. Moreover, it is remarkable how little diphtheria tends to spread when these cases occur in scarlet fever wards. Again, of all the patients sent to hospitals as suffering from diphtheria, who only had tonsillitis, only two contracted diphtheria. It is evident, therefore, that other conditions must be present for a patient to contract diphtheria besides an unhealthy state of the fauces.—Dr. SIDNEY MARTIN said: Very little is known about the membranous forms of sore-throat other than diphtheria. Much confusion has been caused by the use of the term "diphtheritic inflammation," which Virchow defined as "an inflammatory process characterised by an exudation of fibrin and by necrosis of the tissues." There are various causes of this form of inflammation, one of which is diphtheria. It would be best for us to discard this term and to speak of membranous or fibrinous inflammation, just as we speak of "purulent" or "sero-purulent." The marked enlargement of the spleen which is observed in septic sore-throats may perhaps enable us to distinguish between these cases and true diphtheria. At present we are compelled to rely for our diagnosis upon cultivations of the secretions. Diphtheria may, of course, occur in two forms—viz., mild and severe. We certainly meet with cases in which paralytic symptoms follow very slight attacks of sore-throat, which have never been suspected to be diphtheria. Then, too, the membranes may be extremely thin, so much so as only to be divisible on making sections of the affected mucous surfaces. As he had shown elsewhere, the membrane is the fount and origin of the disease, a thesis which he thinks cannot at present be seriously gainsaid. Diphtheria may be defined as a disease of insidious onset (though it does sometimes begin suddenly), which may or may not be associated with membranous formations in the throat, and accompanied by fever and bodily depression, with or without the presence of albumen in the urine. The tendency of the disease is to produce a cardiac affection, showing itself either by fatal syncope or tachycardia, or by palsy due to nerve degeneration, sometimes small in extent, sometimes widespread. It is characterised also by a tendency to invade the larynx by specific bacilli which cause a fibrinous exudation. This bacillus breeds in the false membranes and produces poisons, transforming the proteids of the spleen into products which give origin to the symptoms of the disease. In the case of a man who lived twenty-nine days and died after developing paralysis of the palate on the ninth day, with loss of knee-jerk between the twelfth and fourteenth day, and followed by general paralysis, sections of the spinal cord showed an increase of augmentation in the cells of the motor area of the cord and degeneration of the nerves leading to them. Rupture of the axis cylinder is a preliminary step to degeneration of the nerves towards the muscles. Ultimately only the primitive sheath remains, with masses of black here and there, which constitute the remains of the substance of Schwann. There is also an increase in the number of nuclei. In all cases of acute diphtheria which last more than ten days and die it is possible to make out this nerve degeneration. The lesions resemble the fatty degeneration which follows the experimental injection of the poisons from diphtheritic secretions.—Mr. G. R. TURNER remarked that recent observations tend to confirm the view that diphtheria and drain defects are connected, if at all, only casually, but public opinion, like a pendulum after swinging too far in one direction, is very apt to swing back again equally far in the other. Because sanitary defects do not appear to be directly responsible for outbreaks it would be unwise to assume that they are absolutely without importance. Bad smells &c. certainly conduce to a prevalence of sore-throat, and he holds that throats thus affected are more susceptible to the poison. It is astonishing what a large proportion of patients suffering from diphtheria give a history of cold prior to the attack of diphtheria, and this, he thinks, is because one of the commonest manifestations of "cold" is a sore-throat. In older accounts of diphtheria the membrane is said to have frequently spread around the margin of the teeth with the gums, and if this is no longer observed it may be by reason of the more general use of the tooth-brush. He believes, too, that the symptoms are very much exaggerated if the patient happens to be living under bad sanitary circumstances. The disease certainly hangs about particular localities, and he could point out places in his district which are never free from diphtheria for twelve months together. Such places are usually very damp and very dirty. One often hears of families having scarlet fever and diphtheria, either separately or in combination. He is not prepared to say that they cannot exist simultaneously, but he has no doubt that a mistaken diagnosis is responsible for 99 per cent. of the cases certified as scarlet fever and diphtheria. Persons whose families suffer from scarlet fever and who nurse them often suffer from sore-throat, but these people do not spread diphtheria, while they do certainly spread scarlet fever. Patients who have

had diphtheria without scarlet fever will generally be found to desquamate, and these diphtheria patients spread a disease which is scarlet fever. Moreover, they do not as a rule suffer from diphtheria paralysis. In 1889 and 1890 scarlet fever was very prevalent in Bishop's Storton. There was only 1 per cent. of fatal cases, and it was imported thence into a small neighbouring village. In the following January, between the 9th and the 23rd, 5 cases of scarlet fever occurred and were removed to the hospital. Nothing more was heard of the disease until April, when a girl was sent in with diphtheria and died on the fifth day. Her mother, who had accompanied her to the hospital and had then returned home, was taken ill, and was also said to be suffering from diphtheria. On the same day, in another house, a boy aged nine was sent to the hospital, also certified to be suffering from diphtheria. In hospital, however, the diagnosis was changed into one of scarlet fever. He found three other children in three other houses suffering from scarlet fever. All the seven people he had discovered to be ill had obtained their milk from one particular farmhouse, and when he went to the farm he saw the farmer sitting by the fire with his throat wrapped up, the room looking straight into the dairy. Two of the farmer's children had been ill on March 19th and 29th, and were then desquamating. The farmer was soon after sent in for diphtheria, but after a while he was found to be suffering from scarlet fever. All the other 25 cases were unmistakable scarlet fever. The woman remained in the hospital for twenty-four days, and she had not been out of the hospital a week before she began to suffer from paralytic symptoms. That would doubtless be reported as a mixed epidemic, but all the cases had been consuming milk exposed to scarlet fever contamination. The woman had probably caught her diphtheria from the hospital and not from her child. Bad surroundings intensify the ordinary scarlatinal sore-throat, and when the throat symptoms predominate the true nature of the disease is not recognised. Most cases of diphtheria are mild, and there is hardly any form of sore-throat which may not turn out to be diphtheria. When one sees in the hospital a marked case of diphtheria produce in another patient a slight sore-throat, so trivial that it hardly attracts attention, this mild case, taken to a distant village, sets up an outbreak of well-marked diphtheria, though one might not be able to recognise it. These sore-throats often commence the epidemic. If one makes inquiry it will be found that the first deaths were attributed to croup until a clear case of diphtheria is identified, and thenceforth all the cases are described as diphtheria. These patients with slight sore-throat often do very little harm while they live at home, but if they are admitted to a school which has been reopened the epidemic is started afresh. Children going to elementary schools are very apt to get wet feet, or be otherwise exposed, and so get a condition of the throat which renders them very susceptible. It is to be hoped that we shall soon have some ready means of distinguishing one form of sore-throat from another. Cultivation experiments are obviously out of the question in general practice. Mr. Turner supposes it is generally admitted at present that cows suffer from a disease which may communicate diphtheria. He has seen a form of sore-throat among pigs which closely resembles the form of sore-throat met with in human beings. Although he knows that it is against the weight of skilled opinion that the disease can be spread from fowls to human beings, he knows personally that fowls do suffer from a form of throat affection which is followed by paralysis, and that this disease in fowls often follows or precedes diphtheria among human beings. An old farmer woman of his acquaintance, who was attending to her fowls thus affected, herself contracted diphtheria and spread it to her children, yet so far as he is aware there had been no case of diphtheria for many miles around.

The discussion was adjourned.

PROVINCIAL MEDICAL SOCIETIES.

MANCHESTER PATHOLOGICAL SOCIETY.—A meeting of this society was held on Wednesday, April 11th, Mr. F. A. SOUTHAM, President, being in the chair.—A case of Phthisis occurring in a Dog (bull-terrier) weighing twenty-five pounds. In March, 1891 (at five years of age), the animal had double pneumonia, but recovered. It had a relapse in August, 1891. There were difficulty of breathing and recession of chest walls on inspiration. There was cough, but no expectoration, with mucous rales and dulness all over the chest. In September it had an attack of pneumonia and dropped dead. The necropsy showed pleural cavities filled with fluid. The lungs were shrunken and adherent. On section a number of cavities filled with pus were found. The greater part showed greyness of chronic pneumonia, and the upper lobes were in the first stage of acute lobar pneumonia. On microscopical examination the air cells were found to be filled with leucocytes, with patches here and there, the centres breaking down. Fibrous tissue and pigment were abundant. No giant cells could be recognised.—Dr. T. HARRIS described a Method of collecting and preserving Urinary Casts and other Organic Urinary Deposits. The urine was allowed to settle in the usual way in a urine glass for twelve hours, and the deposit was drawn off by means of a pipette, being then placed in a preservation fluid in a glass tube drawn out to a point like a burette. The tube, thirteen inches in length, was made of ordinary glass of about five-eighths of an inch diameter, being drawn out to a point, so that the lower opening was about one-sixteenth of an inch in diameter. The upper opening was closed by an indiarubber cork. The preservative fluid consisted of a solution of potassium acetate saturated with chloroform, by shaking with an excess of the latter liquid (potassium acetate, sixty grammes; chloroform, ten cubic centimetres; distilled water, one litre). The glass tube was first nearly filled with the preservative fluid, then the urinary deposit was placed at its upper part, and the whole was corked up and allowed to stand in a burette-holder for about twelve hours. At the end of that time the urinary sediment would be found to have passed through the preservative fluid to the lower, narrower part of the tube. All that is then necessary is, by gentle pressure upon the indiarubber cork, to press out a few drops of the fluid with the deposit into a small cell on a microscope slide, to cover the same with a cover glass, and to hermetically seal it up with a reliable cement.—Dr. HARRIS also exhibited a number of preparations of Urinary Casts and other Organic Deposits, some of which had been put up over two years, and which retained the features presented at the time they were mounted. The method was applicable to organic deposits generally, but not to inorganic deposits. Oxalate of lime crystals, however, could be so preserved, but the majority of crystalline sediments were dissolved by the acetate of potassium solution.—Dr. HUTTON and Dr. WANSBROUGH JONES described a case of Lymphadenoma and showed the specimens.

Reviews and Notices of Books.

Two Great Scotsmen: the Brothers William and John Hunter. By GEORGE R. MATHER, M.D., F.F.P.S.G. Glasgow: James Maclehose and Sons. 1893.

THE story of the farmer's two sons who found in London the opportunities and sphere of work in which they earned undying fame has often been told, but seldom so graphically and truthfully as in the volume before us. The publication of the work was intended to coincide with the celebration of the Hunter Centenary last year, and it bears that date on its title-page. It forms a handsome quarto and contains several engravings, including portraits and etchings; in fact, no pains have been spared to make the book a fitting memorial of these famous brothers. It was a happy notion to combine the two sketches in the same volume, and Dr. Mather has been very successful in bringing before the reader their characteristics, each with its strongly marked individuality, the one forming, as it were, both contrast and complement of the other. In so doing he has shown us that in his department William Hunter was as great a man as John, although the fame of the latter has been allowed in some measure to eclipse that of his elder brother, who gave to John the opportunity of following his bent in anatomical study. William, to be sure, started with a better equipment; he had passed through the university, acquired a taste for letters and the fine arts, and had been guided in his choice of a profession by Cullen, the pioneer of scientific medicine. His particular selection of obstetrics was

due to his association with Smellie and Douglas, and his magnificent treatise on the Anatomy of the Gravid Uterus forms his chief monument. William Hunter became indeed the leading obstetrician of his time, and it is worth remembering that, shortly after his arrival in London in 1741 at the age of twenty-three, he became a pupil of St. George's Hospital, and that he joined the Corporation of Surgeons in 1747 and was elected surgeon-accoucheur to the Middlesex Hospital in 1748 and to the British Lying-in Hospital in 1749. In 1756 he became a Member of the Royal College of Physicians (thereby incurring a fine of £20 to the Corporation of Surgeons), was given a Court appointment in 1764, and succeeded Fothergill in the Presidency of the Medical Society of London (*not* of the more august body—the College of Physicians—as Dr. Mather gives it, p. 70) in 1781. It was, however, as an anatomical teacher that William Hunter gained most repute; he commenced to lecture on this subject in 1746 and many years later (1770) founded the Great Windmill-street School, famous for its distinguished pupils, such as Baillie and Charles Bell; whilst his anatomical assistants included his brother John, Hewson, and Cruickshank. His tenure of office of Professor of Anatomy to the Royal Academy (appointed 1768) is memorialised in the unfinished painting by Zoffany. This successful career was brought to a sudden termination by an attack of apoplexy which occurred as he was delivering his introductory lecture on Operative Surgery in March, 1783, and he was buried in St. James's Church, Piccadilly, his monument being between that of his great forerunner, Sydenham, and that of Richard Bright. Dr. Mather describes him as being "a polite scholar, an accomplished gentleman, a complete anatomist, probably the most perfect demonstrator, as well as lecturer, the world has ever seen."

John Hunter, ten years the junior of William, had not the same advantages of early education as the latter, and for this reason perchance his devotion to natural science was more single-minded, his manners were less polished, and his lecturing was less fluent. His genius, however, overcame the difficulties which the lack of early training must have placed in his path. In course of time he came to be acknowledged as the leading surgeon of his time, but he did not accumulate wealth; he freely and lavishly spent his earnings in enriching his museum and providing material for his world-famous researches. There is no need to review here the course of his busy, fruitful life. Its details are constantly presented in the memorial celebrations that are annually held to commemorate him. The whole world of surgery admits that John Hunter introduced a new era into this department and laid the foundations of surgical pathology. It was his passion for truth that accomplished this, his desire for obtaining facts founded upon accurate observation, and his impatience with those who observed without understanding or theorised without facts. John Hunter stands forth pre-eminently as the great exemplar of the true scientific spirit, that spirit which Harvey was the first to show to us, and which, too, has since Hunter's day been possessed by all who have advanced knowledge. He redeemed surgery from being a mere technical art, for he imported into it the vivifying and fructifying conceptions that flow from the study of perverted function and showed that it was on the physiological side that surgical science was to be advanced and completed. Like his brother, he was a student to the end, and, as in his case too, death came with suddenness, although not without premonitions. The dramatic story of his death in the board-room of St. George's Hospital is well known; it occurred in October, 1793, and thus the brothers, whose careers were similar in kind, though different in result, had passed on this earth an equal term of years and had each left behind an undying influence upon science. In what that influence consisted is fully and ably discussed by the author of this interesting work, one merit of which is, as we have indicated, the fact that it enables us to pass from one to the other and to compare the fruits of the labours of these two sons of the farmer of Long Calderwood.

But, apart from the permanent impress which these twin geniuses have made upon medical science, they have also earned the gratitude of posterity by the museums they severally established, tokens at once of their labour and their tastes, and numbered amongst the most precious possessions of this nation. William Hunter's museum, which was in the first place offered to the nation, but, owing to the troublous times, not purchased by the Government, was first accommodated in the buildings in Great Windmill-street and transferred to the University of Glasgow in 1807 in accordance with the provisions of his will. At Glasgow the collection had till within recent years been housed in a classical building worthy of it, but has now been removed to the new University buildings. This collection—pathological, anatomical, zoological, ethnological, artistic, literary, and numismatic—in its scope and variety representing the wide culture of its founder and forming the Hunterian Museum of Glasgow, is less widely known than it should be; and we do not doubt that the ample and sympathetic description of it given by Dr. Mather will do much to awaken interest in it and in the rare treasures it contains. The London Hunterian Museum, the younger brother's monumental collection of anatomical and pathological specimens, has a more personal interest, since it literally embodies the work of his hands. It was fortunate, too, in finding a purchaser in the Government and in being placed in the custody of the Royal College of Surgeons, whose jealous care of it, under such eminent curators as it has had, and the wide extension given to it, have made this museum unrivalled in the world. When we reflect upon the lives of these two brothers and endeavour to realise the extent of the benefits they have conferred upon mankind it is not difficult to understand the feelings of national pride which have produced the book that lies before us. London—the scene of their labours and their triumphs—can share in this feeling, for in her these "two great Scotsmen" found scope and material for their energy and thought; and it is fitting that the tangible and visible products of their labour should find a resting-place—the one in Glasgow and the other in the metropolis. It is fitting, too, that their bones should rest in the city where they laboured, and that the younger and greater should eventually lie in the Abbey which contains the dust of those of our nation who have done most to add to its fame and glory. We are thankful to Dr. Mather for having presented to us a study of their lives that is both instructive and inspiring, and one which will be read with pleasure by all who value the record of work that may rightly be termed "epoch-making."

Clinical Gynæcology: being a Handbook of Diseases Peculiar to Women. By THOMAS MORE MADDEN, M.D., F.R.C.S Edin., Obstetric Physician and Gynæcologist, Mater Misericordiæ Hospital, Dublin, &c. With 259 Illustrations. London: Baillière, Tindall, and Cox. 1893.

A BOOK which is the outcome and faithful record of twenty-five years' experience must always contain much that is interesting and instructive, both to those who have been working in the same department of practice as the author, and who therefore read it in a critical spirit, and to those who have no special knowledge but merely read with the view of acquiring information on the subject of which it treats. Dr. More Madden is not one of those who seem to consider no work deserving of serious attention unless it comes from the Continent, and he warns us in the course of his introductory observations not to expect incessant references to the teaching of German and French gynæcologists "whose authority is elsewhere

now so much relied upon." While expressing himself as ready to adopt every practical improvement irrespective of the source from which it may come he goes on to say, "I for one cannot admit that, whilst our potentialities of clinical study remain what they are, our school of medicine has so far receded from its former position as to be mainly dependent on the dicta of foreign professors whose clinical opportunities are not superior to our own and from whose theoretical opinions on many questions of practical importance I myself dissent." And if these observations have force in relation to Dublin, they are still more to the point in regard to London, the clinical opportunities of which cannot be surpassed. The book is divided into eight parts.

Part I. deals with the Diseases and Injuries of the Perineum, Vulva, Bladder, and Vagina and consists of ten lectures. While thoroughly recognising the value of the uterine sound and its importance in certain cases we do not agree with the author that "by its aid alone can we ascertain the exact size and position of the uterus." On the contrary, we should say that information on these points can generally be satisfactorily obtained by means of the bimanual examination. Indeed, in certain cases the information obtained by passing the sound may be actually misleading as to the size of the uterus—for example, in some cases of large fibro-cystic tumour of the uterus the sound only passes the normal distance. In the treatment of labial abscess Dr. Madden advises that it should be burst open by pressure if possible. We think it can be more speedily and certainly cured by free incision, as usually practised. The lecture on Atresia of the Vagina contains a record of several interesting cases of this condition. We observe that in evacuating the retained menstrual blood the author does not consider it undesirable to make pressure on the uterus to assist the escape of the fluid, and that he also washes out the uterus with an antiseptic lotion afterwards; the cases in which this was done recovered, one, however, after having symptoms pointing to septicæmia.

Part II. treats of the Diseases and Abnormalities of the Uterus, and in this section is included a consideration of uterine fibro-myomata and malignant disease of the uterus. As regards the former, it is interesting to note that Dr. More Madden bears witness to the rarity of their actually being a direct cause of death. "I may, therefore, again observe that in my own tolerably long and extensive experience I have never yet seen a single instance of death directly ascribable to this cause." In the lecture on the surgical treatment of fibroids he takes up a moderate attitude, believing, and as we think very rightly, that operative treatment of any kind is not by any means so universally necessary in these cases as some authorities appear to consider. At the same time he recognises the propriety of operating in a certain proportion of cases. He mentions a series of cases of cancer of the cervix in which he considers "fairly satisfactory" results have followed amputation of the vaginal portion, and he says they contrast in this respect with those of the supra-vaginal operation. In order, however, to draw any satisfactory conclusion from such series of cases two conditions at least are absolutely essential, the first is that it be placed beyond dispute that the disease for which the operation was undertaken was really cancer; it is not enough to say the operation was done "for cancer, or for what I believed to be carcinoma," as the author himself puts it. The specimens themselves and sections of them should be exhibited, and so submitted to independent criticism; it is not at all rare for different opinions to be held as to the significance of the appearances, both naked-eye and microscopic, in cases of cancer of the uterus. That is the first condition; the second is that cases must be followed up and only counted as in good health if they are positively known to be so. It is not enough to say that so many cases have continued "so far as could be learned in good health after the operation." We should scarcely consider that Dr. More Madden has kept himself informed of current progress in the matter of treating carcinoma of the uterus, or he would hardly speak of "the enormous mortality too commonly supervening in operations for the extirpation of the cancerous uterus, whether by abdominal or vaginal methods." No doubt, in the hands of some, the mortality of vaginal hysterectomy has been enormous; but there are several English operators whose mortality for vaginal hysterectomy could not fairly be described as "enormous," but rather as very small, and much less than that attending ovariotomy for some time after it had become an established operation. As regards the treatment of cancer of the uterus by electricity, he says: "Up to the present, however, this method—although, as I believe, probably likely to prove useful in many cases—rests on too limited clinical experience to allow any final conclusions being arrived at as to its absolute value." For the relief of discomfort arising from the fetid discharge in cases of advanced cancer of the uterus Dr. More Madden speaks highly of turpentine, in the proportion of one teaspoonful to the pint of water. We observe that in some cases of anteflexion which are associated with dysmenorrhœa he still believes that the use of an intra-uterine stem pessary is desirable to maintain the patency of the cervical canal. With respect to Alexander's operation he considers that it and its modifications are, generally speaking, unnecessary in retro-uterine displacements, and that after the apparent success of such operations the malposition is liable to recur. As regards hysterorrhaphy or fixation of the uterus to the abdominal walls, it is worthy of attention that one of Dr. More Madden's experience objects *in toto* to such operations, as being generally unnecessary and involving all the risks, septic and others, of intra-peritoneal surgery. The book is copiously illustrated and well repays careful perusal.

Dictionary of National Biography. Vol. XXXVIII. Edited by SYDNEY LEE. Milman—More. London: Smith, Elder, and Co. 1894.

IN contradistinction to the last instalment of this admirable work of reference, the thirty-eighth volume of the "National Dictionary of Biography" contains the lives of but few members of the medical profession who attained to any very high official position in their careers. The first biography in the volume deals with a President of the Royal College of Physicians, in the person of Sir Francis Milman (President, 1811-1813); but Sir Francis Milman, albeit Goulstonian, Croonian, and Harveian lecturer to the College and Physician in Ordinary to George III., cannot be held to have made any definite mark on the national history of medicine. He will probably be chiefly known to tradition as the father of the famous dean of St. Paul's. Sir Thomas Molyneux, President of the Royal College of Physicians in Ireland on four occasions between 1702 and 1720, "the Irish Mead" as he was called on account of his enormous practice and popularity in society, was a greater man, although the part of his work likely to prove of permanent value is rather zoological than medical. He was personally known to all the celebrities of the age, partly through his own merits, but chiefly on account of the intimacy which his brother, the celebrated astronomer, enjoyed with all the early eighteenth century *savants*. Sir Thomas Molyneux published the first scientific account of the Irish elk. Gavin Milroy,[1] a well-known authority on sanitation and epidemiological questions generally, has, by the munificent foundation of the Milroy lectures, acquired, as it were, an official position on the roll of the Royal College of Physicians, although he

[1] For detailed obituary, *vide* THE LANCET, Feb. 27th, 1886.

never held any office in the corporation other than that of a Fellow. These are the only medical subjects of biography in this volume who during their lives at all filled the eye of the medical world.

John Moore, whose life extended over the last seventy years of the eighteenth century, although a physician, is only known to us at this date as a man of letters and a traveller. But he is exceedingly well known to us in both capacities. He was born in 1729 and educated under the same medical instructor as Tobias Smollett, whose biographer he afterwards became. After proceeding to the degree of M.D. Glasgow he had the good fortune to attract the attention of the princely house of Douglas, and as a result made an exhaustive tour of Europe as tutor, physician, and bear-leader to the eighth Duke of Hamilton. This introduction brought Moore into contact with such world-wide celebrities as Voltaire, Prince Charles Edward, and Frederick the Great of Prussia, and furnished him with the material for a charmingly chatty book of experiences and a famous novel. This novel, "Zeluco," was not published until 1786, and, truth to say, is but dreary reading now; but at the time of its issue it had a real vogue, was translated into more than one language and in each ran through several editions; while Lord Byron has described his most popular poem, "Childe Harold," as being meant to portray "perhaps a poetical Zeluco." Moore was in France in 1792, and upon his published observances of the state of things at that critical date Carlyle drew largely in the "History of the French Revolution." Moore wrote two other novels, failures both, and an interesting life of Smollett. He had several sons, one of whom, James, was a medical man, and an early and, by his prolific writings, a most efficient supporter of the Jennerian doctrines of vaccination. Dr. James Moore succeeded Jenner as director of the national vaccine establishment. One of his brothers was a famous admiral, Sir Graham Moore, and the other was the hero of Corunna.

Dr. John Moore's life of rambling, travel, and literary interests makes a sort of culminating example of the lives of several other medical men to be found in this volume, where there are more biographies of well-known men who happened to be physicians than of men who were and are famous because they were physicians. This fact is no doubt due to the habit which prevailed among English physicians from the sixteenth to the end of the eighteenth century of graduating in foreign universities. The habit must have largely helped in the spread among us of continental learning, as it certainly transformed many of the travelling physicians into opened-eyed cosmopolitans; but, whereas the more general worlds of literature, art, politics and science undoubtedly gained by it, it does not seem to have been very conducive to valuable medical work.

Thomas Moffett, M.D. Basle, who flourished at the end of the sixteenth century, was a pupil of the great Caius, and, being expelled from the University of Cambridge, migrated to Basle, whence he returned a convert to the doctrines of Paracelsus and an authority upon silkworms. He was with the Earl of Essex's forces in Normandy, and with Sir Francis Drake in one of his expeditions, and saw the very best of life in court and camp before he settled down, as a *protégé* of Lady Pembroke, to represent the pocket-borough of Wilton in Parliament. Moffett seems to have been a really advanced entomologist, and his *alma mater* would appear to have forgiven him, as he was elected M.D. Cantab. John Misaubin, M.D. Cahors, who lived a little later, was a well-known practitioner, not, perhaps, so important to the world as he considered himself. He is one of the four medical practitioners mentioned in "Tom Jones," the other three being the great Sydenham, and the famous surgeons Freke and Ranby. This constitutes his only claim to historic mention. John Mitchell, M.D. Leyden, a contemporary of Misaubin, was a well-known botanist, experimental chemist, and geographer, but his medical work is summed up in a manuscript note upon an outbreak of yellow fever in Virginia. Edward Milward, also M.D. Leyden, delivered the Harveian oration in 1752, and was elected a Fellow of the Royal Society. His best-known work was of an antiquarian character, being an attempt to rescue one Alexander Trallianus from obscurity. Milward, like his medical brethren whom we have just considered, was rather a scholar than a physician.

There are three examples in this volume of a hereditary bias towards the medical profession, and they occur under the names of Monro and Molines (Moleyns, Moulins, or Mullins). The Molines family were surgeons. The first one of whom we hear is Allan Molines. He was a Fellow of the Royal Society—possibly an original Fellow, as he died at the end of the seventeenth century—and made some useful discoveries with regard to the minute anatomy (as the word "minute" was then understood) and blood-supply of the eye. His son, James Molines, was Master of the Barber-Surgeons' Company in 1632, having ten years previously been elected surgeon to St. Bartholomew's Hospital "for the cutting of the stone." James Molines had two sons in the profession—Edward and William. Edward was a turbulent spirit. Having been appointed surgeon to both St. Thomas's Hospital and St. Bartholomew's Hospital, also "for cutting of the stone," he was expelled from the former post because of his Royalist proclivities. He also appears to have quarrelled with the Barber-Surgeons' Company, but was reinstated into his offices at the restoration of the monarchy. William Molines was a less conspicuous person. He did some anatomical work for his father's company, and wrote a modest little book on anatomy, and some notes on the surgical practice at St. Thomas's Hospital. William had a son, James Molines, who was a medical graduate of Oxford University, and, like his father and grandfather, was surgeon to St. Thomas's Hospital. But this series of four generations is eclipsed by the English Monros, who practised medicine in unbroken line until 1891 for two hundred years. Alexander Monro, D.D., principal of Edinburgh University towards the end of the seventeenth century—who must not be confused with three distinguished persons of exactly the same nomenclature whose doctorates were obtained in medicine—had a son, James Monro. James was an M.D. of Oxford University, was elected physician to the Bethlehem Hospital in 1728, and delivered the Harveian oration before the Royal College of Physicians in 1737. His eldest son, John Monro, was also M.D. Oxon., and physician to Bethlehem Hospital. He was censor of the Royal College of Physicians on several occasions, and in 1757 delivered the Harveian oration. He had a distinct taste for art, and is said to have assisted Strutt in the preparation of his "History of Engravers." Thomas Monro, like his father and grandfather, graduated in medicine at Oxford, was censor and Harveian orator at the Royal College of Physicians, and physician to Bethlehem Hospital. He was a distinguished physician, but will chiefly be remembered as a connoisseur and art collector, his father's taste for art being very highly developed in him. He was one of the best-known connoisseurs of his day, and no mean draughtsman himself, and more than any other man stimulated the growth of water-colour painting in England. Among the famous men who profited by his patronage—and their present prices form a curiously exact justification of his discrimination—were Turner, De Wint, and Linnell. He died in 1833, and was succeeded at Bethlehem Hospital by his son, Edward Thomas Monro, M.D. Oxon., and one of the numerous physicians to George III. Dr. Edward Thomas Monro had a son, Henry Monro, the last of this long line of distinguished alienists. Like his ancestors, Dr.

Henry Monro,[2] a notice of whose death will be found in our pages, was a medical graduate of Oxford and physician to Bethlehem Hospital. Like his father and grandfather, he also was an artist, and the portraits of himself and his father which hang in the Royal College of Physicians are from his brush. His philanthropical work will perpetuate his memory. This family of Monros must not be confused with the family of John Monro, a surgeon in the army of William of Orange. John Monro was the father of one, the grandfather of a second, and the great-grandfather of a third Alexander Monro, all of whom were distinguished Scotch anatomists between the years 1697 and 1859.[3] The second Alexander had a brother Donald, who achieved English celebrity, having been physician to St. George's Hospital, Croonian and Harveian lecturer to the Royal College of Physicians, and a Fellow of the Royal Society. The third Alexander was perhaps the best known, and if his contributions to the science of his choice have not been very copious or noteworthy the quality of his pupils speaks volumes for his abilities as a teacher. Professors Allison, Traill, Christison, Syme, Liston, Miller, and Edward Forbes; Drs. Abercrombie, Hope, Holland, Bright, and Marshall Hall; and Sir Humphry Davy—all benefited by his tuition.

In a notice of this volume of the "National Dictionary of Biography" from a purely medical point of view we should do wrong to omit mention of the name of Lady Mary Wortley Montagu, who in 1717, as a result of her observations at Adrianople, had her son inoculated in the Turkish fashion as a preventive to small-pox; and on her return to England had the foresight to do her best—which was a very good deal—to introduce the practice generally into her own country.

*** *Burdett's Hospital and Charities Annual.*—We regret that in our notice of this book the reviewer has alluded to all the introductory chapters under the title of "Chief Events and Stages of Progress," which heading only belongs to the first chapter. He was led into the error by a printer's mistake in the copy of the work sent to us for review, by which the title of the first chapter has been printed above the second also. We recognise the sincerity and arduousness of the labours which Mr. Burdett has displayed in the compilation of the work and are glad of this opportunity of rectifying the inadvertence.—ED. L.

THE ROYAL ACADEMY OF ARTS.

THE 126th Exhibition of the Royal Academy of Arts is not a national show upon which, as a nation, we can congratulate ourselves highly. There are some good pictures—a few; and there are some bad pictures—not a few; and there are upwards of 1300 not exactly meriting either label, but, on the other hand, not exactly meriting any attention at all. Yet it is not the mediocrity of the mass of the pictures that will provoke resentment, but the vulgarity of the methods that have been uselessly, because so commonly, adopted to escape the imputation of mediocrity. A great number of pictures demand inspection by the novelty of their theme alone. Not for many years, if ever, have there been so many hot, violent, crude pictures; indeed, in more than one instance the ambition to gain attention as a brilliant colourist would seem to have eclipsed all other aims. This perhaps gives by comparison an artificial value to the more sombre canvases and the more usual topics.

In the first gallery there is nothing particularly striking. The least impressive of the President's five pictures hangs on the line in the centre of the southern panel (20); a very stiff landscape (55) shows Mr. J. C. Hook, R.A., at a great disadvantage; and a pleasant, quiet picture by Mr. T. Sydney Cooper, R.A. (9), demonstrates that this veteran has not lost his cunning nor been seduced by modern methods from the style he has made peculiarly his own. This gallery contains an admirable portrait of Major-General Sir Francis Grenfell, K.C.B., by Mr. W. W. Ouless, R.A. (15). The second gallery contains the most beautiful of Sir Frederick Leighton's pictures (135), the figure being very graceful and the difficult attitude expressed with the correctest anatomy. A portrait of Surgeon-Major John Campbell, C.B. (81), bears the imprint of truth. The third gallery gives hospitality to the work of a great many notable names, but not to many good pictures. The first exception to this is furnished by a striking portrait of Sir William Savory (191), which is a fine, well-planned, simple, yet important picture. Opinions will probably differ considerably as to the merits of the portrait of the late Sir Andrew Clark (251), by Mr. G. F. Watts, R.A. It is a great picture, but to some it will hardly prove a convincing likeness. The only full-length portrait in military costume in the Academy also hangs in the big room, and in a very conspicuous place. It is a portrait of Surgeon-Lieutenant Leopold Hudson in the *levée* costume of the Duke of Cambridge's Hussars, by Mr. Collier Smithers (181), and is both a good picture and a good portrait. Mr. J. T. Nettleship's vigorous presentment of animal life (175) will arrest attention, so also will the canvas of another great delineator of wild animals, Mr. Briton Riviere, R.A. (169), entitled "Beyond Man's Footsteps," but in this case the attention will probably be not unmixed with wonder. "The Magic Crystal" (218) shows Mr. Frank Dicksee, R.A., to advantage, and will probably prove one of the popular pictures of the year; but the ambitious picture "Orpheus" of Mr. J. M. Swan, A.R.A., is hardly so undoubted a success, though it is one of the best works in the collection. The minstrel appears to us to stand in a singularly strained, if not impossible, attitude. Which leg is bearing his weight? In the fourth gallery Mr. Ridley Corbet (300) has a beautiful landscape, Mr. Val. C. Prinsep, A.R.A., an enormous figure picture, and Mr. W. F. Yeames, R.A. (306) a clever imagining of the corrupt, religious, brave, feminine son of Catherine di Medici, Henry III. of France. In the fifth gallery a nude by Mr. Hubert Herkomer, R.A. (340), challenges attention. The subject of the picture forms one of the numerous presentments of the female figure in the exhibition, to the study of whose anatomy no obstacle of any sort is offered. Mr. Herkomer's is the best of them, but his picture achieves no victory over difficulties. Mr. Herbert J. Draper (370) has, on the other hand, greatly dared, but his representation of a naked woman caught in a fishing-net is not satisfactory. Nothing in the next four galleries calls for particular attention from us. A portrait of Professor Burdon Sanderson, by the Hon. John Collier (462), is workmanlike; and a skied portrait of Mrs. C. B. Keetley, by Mr. T. B. Kennington (465), shows the artist to have availed himself of the opportunities afforded by his subject in producing a very pretty picture. Mr. Stanhope A. Forbes will be considered to have justified his recent honours by his two pictures (461 and 468) in this gallery. Mr. Henry Moore, R.A., contributes a charming little seascape in "Outward Bound" (645), and Mr. Rudolf Lehmann, who has recently accepted a commission from the Royal College of Physicians of London to paint a memorial portrait of their late President, sends a good little study in "Mariana" (764). Expression and attitude are capitally caught, and the hands correct. In the tenth gallery we have no doubt that Mr. Charles W. Furse's portrait of Lord Roberts of Candahar (838) will be much admired, and possibly the method by which its appearance of mellowness has been achieved may excite curiosity; while a picture by Mr. Gunning King of an accident in the hunting field (834) is a bold piece of composition. In this gallery and in two pictures almost in juxtaposition our anatomical eye was offended. The principal figure in Mr. Edwin Abbey's large canvas (797) is surely some seven feet high; while the reclining figure in Mr. Henry J. Stock's beautiful little picture (794) would seem to have an exostosis of the right clavicle. The colouring of this picture is really noteworthy—it is so rich and yet so quiet.

On the whole, the exhibition is not one that is illustrative of any very high tendencies in modern English art. There is abundant evidence of considerable cleverness, but not much of any deeper qualities. As we have implied, the number of nude figures in the exhibition is certainly large, and, as a rule, their anatomical delineation is correct.

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[2] THE LANCET, May 23rd, 1891.

[3] THE LANCET, March 26th, 1859. Under "Munro."

THE LANCET.

LONDON: SATURDAY, MAY 5, 1894.

THE action of ANSELL *v.* TAIT was tried on April 30th in the High Court of Justice before Mr. Justice MATHEW and a special jury. In this action the plaintiff, a coachman, sued the defendant, a medical practitioner, for compensation for alleged negligence in his professional capacity. In August, 1891, the plaintiff whilst at Cromer sprained his ankle. On returning to London he consulted Dr. E. S. TAIT, who saw him from time to time and treated him for the injury. As there was no evidence for a considerable period that anything of more serious import than the usual effects of a severe sprain existed the patient was allowed to continue his occupation under certain restrictions. A Martin's bandage was applied for the purpose of local support and partial rest. Later the case assumed a graver aspect—so much so, in fact, that Dr. TAIT, in the exercise of his judgment, made an exploratory incision and probed the wound to arrive at as complete a diagnosis as possible. In March, 1892, recognising the serious nature of the disease, he advised the plaintiff to go into a hospital. In the following month Mr. FRASER STOKES made an examination of the plaintiff at the instance of the latter's employer. Dr. TAIT and Mr. STOKES afterwards met in consultation and agreed that the joint was seriously disorganised. The plaintiff went into a hospital, where it was found necessary to amputate the foot in consequence of irreparable tuberculous disease. In September of the same year the other ankle became affected. The disease again took an unfavourable course. The joint was destroyed, and the foot had to be removed. Prior to the sprain of the ankle Dr. TAIT had treated the plaintiff for hæmoptysis and had diagnosed tuberculosis of the lungs.

On the part of the plaintiff it was contended that Dr. TAIT had failed to diagnose the disease; that he had treated him simply for a sprain; and that the treatment was absolutely injurious in a case of tuberculosis. In round words, the charge against Dr. TAIT was that, owing to his want of skill and care, the plaintiff had lost his foot; nay, further, counsel ingeniously suggested that it was through "sympathy" that the other ankle became diseased. To further discredit Dr. TAIT'S professional knowledge, it was urged that he erred in making an incision, and that, forsooth, because only blood issued from the wound. Such were the facts and hypotheses put forward in this preposterous action—we had almost said persecution. Sir WILLIAM SAVORY and Mr. LOCKWOOD gave evidence in favour of the defendant, and to all they said we desire to give unqualified assent. It is common experience to every medical man that it is difficult, and often impossible, to diagnose with accuracy the simple effects of injury from the more serious ravages of superinduced disease. Until such diagnosis has been arrived at the line of treatment is obvious. The surgeon has to guard against too rigid fixation of the joint, and avoid permanent stiffness, on the one hand, and against too great mobility, that might aggravate possible tuberculous disease, on the other. To carry this out, Dr. TAIT, with sound judgment, advised partial rest and the use of a supporting bandage. Fault was found with the kind of bandage advised, on the assumption that rubber material caused increased heat of the part, and that the application of warmth was injurious in tuberculosis of joints. It is obvious that Dr. TAIT had in his mind the not unlikely supervention of destructive arthritis, since he had treated the plaintiff for pulmonary hæmorrhage and at a certain period made an incision and used the probe to find if there was evidence that his fears might be realised. After Sir W. SAVORY and Mr. LOCKWOOD had given evidence the jury stopped the case, and judgment was given for the defendant. Thus Dr. TAIT left the court without—as the customary phrase goes—a stain upon his character. True, his professional escutcheon had been brightened and not tarnished by the ordeal through which he had passed; but this is only poor recompense for two years of ceaseless anxiety, to say nothing of heavy pecuniary loss.

Our purpose in writing these comments is primarily to sympathise with Dr. TAIT and bear witness to his acknowledged skill and character; but, further, we desire to enter an emphatic protest against existing conditions which leave a medical man, no matter how high his reputation, utterly helpless against vexatious claims. Could the charges levelled against Dr. TAIT have been heard by a Court of First Instance, such as is provided in criminal process, there can be no doubt that they would have been dismissed with contempt. So long as a man has the comparatively good fortune to meet a charge of violation of the criminal law, means are at his disposal to prove his innocence with the least possible delay, whereas, although his professional character may be equally assailed by civil action, he has to endure months and possibly years of bitter suspense without a chance of remedy. Could the facts in the action against Dr. TAIT have been placed at once before a competent and impartial body of men—say, the Presidents of the Royal Colleges of Physicians and Surgeons, with a legal assessor—the issue would have been determined without delay. We earnestly advocate the institution of some court, comparable to a grand jury, or the Attorney-General's office, as Director of Criminal Prosecutions.

A MOST valuable lecture on the hygiene of ships, which we print in our columns this week, was delivered before the Shipmasters' Society by Dr. COLLINGRIDGE on the 20th ult., in which he pointed out in minute detail the various reforms which are necessary to ensure the best health of the sailor afloat. The bilge, the forecastle, ventilation, heating, cleansing, food, clothing, and quarantine are taken in order, and practical suggestions are given which, if carried out, would make a ship almost an ideal sanatorium. Moreover, most of the reforms could easily be made in the building of a new ship at but small cost, although some of them would be too expensive and involve too much structural alteration for any reasonable expectation that they can be carried out in vessels already in commission.

It is not generally appreciated that phthisis is by far the most fatal disease of sailors, and that (as the statistics of the Seamen's Hospital show) it incapacitates and kills more merchant

seamen annually than either accident or heart-disease. Not only do English sailors suffer largely from this malady, but the hardy Norseman as well as the delicate Lascar is a frequent victim. The main cause of this susceptibility to phthisis is easily seen, for, as Dr. COLLINGRIDGE points out, only 72 cubic feet of space is even now the compulsory limit in the forecastle for every European seaman. It will be appreciated that the compulsory minimum of space is almost the minimum of necessity. A berth must necessarily be 6 feet long, 2 feet wide, and from 2½ to 3 feet from the deck or the berth above. This accounts at once for 36 cubic feet. If each berth has now 2 feet space on its inner side as a contribution to the unoccupied middle of the forecastle, the whole of the compulsory 72 cubic feet is exhausted. It is true that the seaman is only in his berth for four hours consecutively, but the air-space is too little even under these conditions, and although free ventilation may make some amends for deficient space, we are sure that Dr. COLLINGRIDGE is fully justified in urging that a minimum of 100 cubic feet per head should always be provided, even if deck houses be used for sleeping berths instead of forecastles. An overcrowded ship, even in mid-ocean, is necessarily unhealthy, and phthisis will be developed therein as surely as in a densely populated city.

It is unnecessary for us to follow Dr. COLLINGRIDGE in his minute details, as our readers have his paper before them, but we desire to refer to one or two points, about which there may be some difference of opinion. His estimate of the importance of the state of a ship's bilges in reference to the health of the floating community is in every way correct, and his suggestion of regular pumping and washing out is valuable, but we question if the bilge can be pumped as nearly dry as he would lead us to infer. From three to four inches of bilge-water must always remain, however efficiently the pumps do their work, and frequent washing out with clean water is therefore the more necessary if the health of the crew is to be properly considered. Next, it will be seen that Dr. COLLINGRIDGE recommends that "the bunks should be arranged so as to leave a clear space between them and the ship's side. This space, he adds, should be wide enough to permit a man to pass round between the side and the outer edge of his bunk for painting or other cleansing purposes. Now, if a clear space be left sufficiently wide for a man to pass between the berths and the side of the ship a very considerable amount of room would be lost, at present available for transit purposes. For such a space to be of any practical use in the direction which Dr. COLLINGRIDGE recommends could scarcely be less than a foot in breadth, and from the conformation of the side of the vessel this breadth, at the level of the deck, would be much greater. We can easily understand even a most philanthropic owner grudging this unoccupied space, although undoubtedly it would be a great improvement on the present arrangement of the bunks. To one point in this excellent and practical paper we take some exception. It is to the recommendation of dry scrubbing for purposes of cleaning. We doubt if this would be thoroughly carried out, and if not it is very inefficient. We do not think that water can be too freely used if proper care be taken that the superfluous water is quickly got rid of, for, although "a damp ship is an unhealthy ship," it need not be damp if the decks and the forecastles are properly and speedily rubbed and dried after being washed. Organic matter cannot then accumulate and become a nidus for the growth of germs.

If we look back at the conditions under which "Jack" existed previously to the passing of the Merchant Shipping Act of 1854, and then picture to ourselves a meeting of shipowners listening to a port medical officer of health who is pointing out to them how "Jack" could in the future be most comfortably provided for at sea, as to his food and cooking, his sleeping accommodation, his baths, and even lavatories, we shall see how entirely modern are all our ideas of proper sanitation at sea, and how rapid has been its progress. In comparatively recent times shipowners summoned together for such a purpose would have used nautical language.

THE publication of the reports of the majority and of the minority of the Labour Commission, together with the introduction of Mr. ASQUITH'S Factory Bill in the House of Commons, have brought labour questions well to the front. We may at once say that the reports and the Bill coincide, as far as they go, with the descriptions we have published and the recommendations we have made when dealing with the public health aspect of labour questions. The remedies we proposed, more particularly in our special reports on sweating, have now been taken up and confirmed by these high authorities. A dead set is made in all these documents against home work. Everything goes to confirm our contention that a home should be a dwelling-place and not a workshop. "We think," says the minority report, "it is of great importance on economic grounds" (on our side we demonstrated its importance on sanitary grounds) "that all workshops, whether small or large, and all industries, whether carried on in factories or in slum tenements, should be subject to equal, though not necessarily identical, regulation and control." Such places, even the so-called domestic workshops, should be registered and subjected to equally adequate inspection. The landlord of tenements used as workshops should be compelled to communicate the fact to the factory inspector, and the employer giving out work should keep a register of the places where the work is done for him. Of course this will imply a large increase in the staff of inspectors. Even where inspection is best there is still "ample evidence of the neglected, filthy, insanitary condition of the greater number of the lavatories in textile factories"; what then must be the sanitary state of the unregistered, unknown workshops and sweating dens where millions of people daily toil? Speaking of women workers, the minority report recognises that "their condition is best in those industries in which the factory system has become universal, and worst in those in which home work is most prevalent. We consider that a strenuous endeavour should be made by the Government to raise the East London trouser-finisher or fur-puller to the level of the Lancashire mill-worker." Such are some of the recommendations of the minority report.

The majority report, it will be generally admitted, recalls the proverbial offspring of the mountain. The Labour Commission examined, we believe, 583 witnesses, and has issued some sixty-five bulky Blue-books; and yet, after this review of the miseries that still prevail in our midst, after

having during three years heard innumerable proposals and collected the most exhaustive supply of facts ever obtained on labour questions, the majority of the Commission have not been able to hit upon any plan of action. They even ask for more information, for they desire the appointment of "a staff of skilled investigators to inquire into the conditions of labour." What, then, may we ask, has the Commission been doing these three years with its 583 witnesses, and what are the sixty-five Blue-books it has published about? It is very evident that the majority report manifests considerable nervousness and fear with regard to State intervention; and yet the few and slender proposals it makes are nearly all in that direction. For instance, it demands "a modification of the Factory and Workshops Acts to prevent overtime being worked by young persons in certain specified trades, including dressmaking; the extension of the provisions of the Factories and Workshops Act, so far as they relate to sanitary matters and young persons, to laundries"; "the passing of an Act making it compulsory on each workshop owner to obtain a certificate of the fitness of his premises and of the workshops of outworkers, especially in the case of the manufacturers of clothing, boots, and cheap furniture, and in bakehouses and laundries"; the application by rural sanitary authorities of their power to close insanitary labourers' cottages; and the advance to landowners by the State of loans to build labourers' cottages. There are other recommendations; but these are, it seems to us, the most drastic and the most efficacious—and that is all. As much, and very much more, could have been said without devoting three years to so elaborate an inquiry.

Finally, we have Mr. ASQUITH'S Bill, which may be taken as the practical embodiment of these investigations and agitations on labour questions. Firstly, Mr. ASQUITH proposes to raise the air space to be allowed to each man in factories or workshops from 200 to 250 cubic feet; 300 cubic feet would not have been too much, but the amount is to be 400 cubic feet after eight at night. Courts are to be empowered to order necessary structural alterations. Henceforth women and young persons of both sexes are to be debarred from cleaning machinery in motion, a restriction which at present applies only to young children. There is to be a further limit to overtime, which shall on no occasion exceed three days in the week; and, what is more important, women and children shall not take work home when they have finished their day's work in the factory. We are glad to note that, in spite of the persistent rumours to the contrary, and perhaps as a consequence of the agitation these rumours occasioned, laundries in general, as well as steam laundries, are to be brought under the Act. Docks, wharves, and temporary shanties are to be also included, together with the tenement factories so common at Sheffield. With regard to specially unhealthy industries, Mr. ASQUITH asks that the Secretary of State shall have power to restrict altogether, and prevent, the employment of women and children.

There are many other matters, especially in the reports of the Labour Commission, to which we should like to refer, notably the question of certifying surgeons, but we must defer these observations to another opportunity. We will only add, on the present occasion, that in the documents before us there is a very important omission. Much is said and proposed which will tend to drive workers out of the insanitary workshops in which they now toil to the great peril of their health. Little or nothing is said as to the creation of wholesome workshops. It is folly to look upon the owner or occupier as able in all cases to do what is needed. The employer, in the sweating trades notably, is often nearly as poor as the men and women he employs; yet in many instances something like scientific ventilation is required to render a workshop really wholesome, and for this purpose great engineering skill must be brought to bear. This has led us to propose the erection of buildings especially adapted for workshops, where steam power could be supplied to each tenement workshop for purposes of ventilation. Mechanical ventilation, when provided wholesale to a great number of workshops all in the same building, would not be expensive; it would be absolutely ruinous if attempted in any one small workshop. Yet there are many trades where mechanical ventilation is indispensable. So also with regard to laundresses. No small laundry can afford to pay for the necessary appliances; but several laundries might share between them the cost of installations that could be jointly utilised. In this respect a great extension must be effected of the public baths and washhouses, and the poor washerwoman who takes in a little linen every week must find in the public washhouse those sanitary conditions which she can never attain in her own humble and private home. With regard to workshops, as with regard to slums, rookeries, and insanitary dwellings generally, we must not only pull down what is bad, we must simultaneously erect something much better.

THE result of the inquest upon the man OWEN WILLIAMS at the London Hospital last week forms an admirable example of a phase of understanding or misunderstanding which is very familiar to us, so frequently is its existence placed in evidence, but which is none the less quite incomprehensible in these days of general education. How is it possible that the ordinary man should not have the vaguest conception what his interior is like? The house surgeon of the London Hospital stated that OWEN WILLIAMS'S death was due to perforation of the intestine and subsequent peritonitis, and that the intestines contained a piece of string with corks attached, a piece of leather with a hook at each end, quantities of loose cork and tinfoil, and a bullet. The unfortunate man had made his miserable livelihood and dug with pain his early grave by swallowing these and other substances, violently at variance with the contour, consistence, and capacity of his alimentary tract, in return for coppers. It is impossible to believe that penury, however chill, or bravado, however pronounced, would have led this poor wretch, or similar polyphagous performers, to attempt the digestion of such articles if the most rudimentary knowledge of anatomical construction had been his or theirs. But it is none the less a source of wonder how such knowledge is escaped. In particular is the ignorance wonderful when found in the ranks from which the public-house performer is invariably drawn, so many of the humbler walks in life bringing with them as a necessity a rough acquaintance with the anatomy of the lower animals.

There are certainly two conditions which impel the

performer to these feats, although ignorance and the recklessness bred of ignorance and penury account for the great majority of examples. The other condition is bulimy, or an inordinate craving for food, and polyphagism, or a tendency to eat anything—a sort of universal ravening; but the two are usually mixed in the same individual. There are many and generally revolting stories of this sort of depravity, but the victims to disordered appetite do not display any uniformity of symptoms, and their clinical histories are not wholly reliable, nor are the cases of sufficiently frequent occurrence to make of the condition one that demands the serious attention of the pathologist. But to all members of the medical profession they must have an interest, so astounding are some of the feats which are known to have been performed with impunity, and so mysterious is the mental condition which could allow of their performance. There are recorded instances of men who have devoured the whole of a sheep or of a sucking-pig raw, and there is one at least of a man, an attendant at the Jardin des Plantes in Paris, who ate the whole of a dead lion. Another Parisian, by name TARRARE, who made a livelihood by swallowing corks, pebbles, apples, and such unconsidered trifles, would occasionally, to satisfy a bestial craving, eat a live cat, and appears finally to have taken to cannibalism. These exploits are not to be confounded with the mere swallowing of some substance obviously unfit for deglutition or reception into the stomach, as there is an element of gluttony introduced. It is difficult to believe that in iron and stone eating there can be the same element present. Yet iron and stone eaters have claimed to experience gustatory and other pleasant sensations in connexion with their acts, occasionally adding that they eat nothing else and wax fat. FRANCIS BATTALIA, who ate half a peck of small stones with his beer every day, served as a soldier in the seventeenth century and refused other rations. Whatever his particular method of deceit was he seems to have imposed upon the medical profession of the day, and as we are not informed how big the stones were it is possible that they were small enough to cause no inconvenience as foreign bodies, and may have aided in stomachic trituration. The feats of JOHN CUMMINGS, an American sailor, at the beginning of this century are as wonderful as any, and are generally received as authentic. It appears undoubted that this man swallowed thirty-five clasp-knives, and that although in the end he died in great agony in Guy's Hospital he lived ten years with a considerable, though uncertain, number of clasp-knives in his stomach.

We need not enumerate any more of these stories; the post-mortem room of every large institution could make its sensational addition to the list and so prove to the hilt the extraordinary ignorance and rashness of the subjects of the necropsies, as well as the powers of endurance and tolerance which the intestinal tract will now and again exhibit. Mr. JACK HOPKINS' celebrated case of "the common necklace made of large, black, wooden beads," though narrated in fiction, might almost be the pellucid truth. But we desire to call pointed attention to the attitude of the bystanders at these and similar exhibitions. Where does manslaughter begin if the persons who at different times witnessed OWEN WILLIAMS'S exhibitions and paid for them can be held morally quit of his death?

Annotations.

"Ne quid nimis."

NEW FEATURE IN THE OFFICIAL DEATH RETURNS.

THE Registrar-General's return for the quarter ending March, 1894, has been issued, and as it contains certain modifications and improvements in comparison with previous issues it ought to be welcome and useful to a large number of medical officers of health and their authorities. We have, therefore, thought it expedient to draw attention in these columns to the special features of this new departure in our national system of vital statistics. For many years past useful tables, numbered V. and VI., have been given in the official quarterly returns, relating to births and deaths in each of the most populous municipalities in England and Wales. The number of great towns so dealt with was for many years limited to twenty-eight, but since the year 1891 the number of these towns has been extended to thirty-three, the aggregate population included in these towns exceeding ten millions and a half. It is needless to say that this valuable and familiar table is continued in the return now before us. In Table VII. of past returns were given death statistics relating to a number of registration subdistricts, or groups of subdistricts, more or less nearly coterminous with sixty-seven of the second-rate English towns; but as these areas seldom corresponded exactly with the areas under the jurisdiction of individual sanitary authorities it is not surprising that the table should have been but slightly appreciated by the local guardians of the public health. A special feature of the return just issued is that the old table here referred to has been entirely recast and made to relate to the precise areas of the sixty-seven towns or urban sanitary districts coming next, in order of population, to the thirty-three great towns dealt with in Tables V. and VI. As in the case of the thirty-three great towns, the deaths attributed to the sixty-seven smaller towns in Table VII. have been corrected as completely as possible for institution deaths, the deaths of persons occurring in hospitals, workhouses, and lunatic asylums having been referred to the localities from which the patients had originally been transferred to the respective institutions. For the future, then, the Registrar-General will publish in his quarterly returns uniform particulars of the deaths occurring in each of the hundred principal towns of the country, instead of for the thirty-three great towns only. The population with respect to whom quarterly returns of mortality will regularly be available amounts, therefore, to 14,000,000, or nearly half of the population of England and Wales. We perceive, however, that the annual rates of mortality corresponding to the deaths registered in each of the sixty-seven towns of Table VII. are not given in the new return. It may be that, warned by previous experience, the Registrar-General hesitates to incur the risk of estimating separately the populations of these rapidly and unequally changing areas for successive years, although he has done so for the aggregate area of the sixty-seven towns. We would venture to hope, however, that, having regard to the greatly enhanced value which such an addition would give to his quarterly returns, the Registrar-General will, at no distant date, feel himself justified in adding a column of annual death-rates for each of the sixty-seven towns included in this table, corresponding to those now regularly published for the thirty-three great towns of England. On further examining the return before us we find that the modification of Table VII. has paved the way for another most important readjustment—namely, that of the boundaries of the "town and country districts" included in Table III. on page 11 of the return.

For the future the "town districts" will include the 100 principal towns, together with all the other registration subdistricts of England and Wales, three-fourths of whose populations, as enumerated at the 1891 census, resided within the boundaries of urban sanitary districts; the "country districts" consisting of the remainder of England and Wales not included in the above-mentioned category. As a result of the changes from rural to urban constantly taking place in the character of districts throughout the kingdom it is, of course, inevitable that a rectification of boundaries should periodically be necessary in order to maintain as accurately as possible the distinction between town and country. We think that, having regard to the heterogeneous character of the areas involved, the principle of classification adopted by the Registrar-General is in every respect satisfactory. The Registrar-General's quarterly return is a most important State publication, relating as it does to the births, deaths, and marriages registered in the whole of England and Wales; and as the return is now issued within a month of the termination of the quarter to which it relates we hope that in its present greatly improved form it will be attentively studied by those who are most directly concerned in the care of the public health.

THE DEATH OF MR. McCULLACH TORRENS.

THE reign of Queen Victoria will be remembered in the future as a time when, above all others, efforts have been made for the social improvement of the English people. The earlier years of this period have been rich in men who have devoted their lives to philanthropic work, and among them the name of William Torrens McCullach Torrens, who died this week, will not be forgotten. At the early age of twenty-two he was appointed a Commissioner of the Poor-law Inquiry in Ireland of 1835, and from that time he devoted himself to producing measures for strengthening and developing local administrations. His inclinations naturally led him to seek a parliamentary career, and from 1847 to 1852 he represented Dundalk in the House of Commons. His more important work will always be associated with his representation of the borough of Finsbury, for which he was elected in 1865 and for which he sat during four successive Parliaments. Three years after his election he succeeded in passing the Artisans' and Labourers' Dwellings Act, 1868, which was the first of the series of enactments now constituting the Housing of the Working Classes Act. The Act was in more than one sense a new departure, particularly in the fact that it enabled local authorities to proceed against persons having more than twenty-one years' interest in insanitary dwelling-houses and excluded from these proceedings those having a shorter interest. It aimed at effecting more radical improvement of houses than could be enforced under the Nuisances' Removal Acts and empowered local authorities to require work to be done in accordance with the terms of specifications prepared by surveyors, and if they thought that improvement was impossible to require the houses to be demolished. Under this Act much useful work was done in districts where local authorities had the firmness to administer it, and its effects were, indeed, more widely felt than in respect of the particular houses which were the subjects of proceedings under it. Owners of houses, in fact, found that sanitary authorities were armed with a more effective weapon than they had previously possessed, and the knowledge that heavy expenses might be incurred by allowing houses to become dilapidated was an excellent reason for enforcing the provisions of repairing clauses in leases. The attention which Torrens' Act caused to be directed to this subject was not without fruit, for in 1875 Lord Cross was able to carry through Parliament the Act long known by his name and by which many unhealthy areas have been cleared and well-designed artisans' dwellings erected in place of the insanitary dwellings which previously occupied the sites. If Mr. Torrens had left no other record of his work than this behind him the inhabitants of large towns, and especially London, would have reason to recollect him with gratitude; but other questions engaged his attention, and he was not less successful in his dealings with these subjects. His friends may claim for him that he was among the first to recognise the advantage which would result from the boarding-out of pauper children by Poor-law guardians, and in 1869 he obtained the adoption of this method for London. He took an active part in the legislation relating to compulsory education, and he was largely responsible for the creation of the London School Board, of which he himself became a member. In 1885 he brought in and carried an Act limiting the charge for water rates in London to the amount from time to time of the public assessment, and but for which the claims of water companies would probably have been much higher than they are at the present time. Mr. Torrens' life was one of great industry, and there are not many who can leave a record of so much or such useful work as that to which he devoted himself.

"KISSING THE BOOK" AND LEPROSY.

IF any argument were wanting to demonstrate the advantages of the Scottish form of taking the oath in courts of justice it might be found in this paragraph which we quote from the *Port Elizabeth Telegraph and Eastern Province Standard* of April 3rd last: "The following somewhat sensational incident, which is reported in connexion with the holding of the Circuit Court at King Williamstown, is an illustration of the dangers attached to the 'kissing of the book' in the witness-boxes of courts of law. An elderly native witness in an arson case—one William Bolendu, of Izeli—was giving evidence, when Dr. Chute called his lordship's attention to the fact that the man was a hopeless leper, and that at the moment he was standing with one disfigured hand quite close to the Testament on which witnesses were sworn. The leper, Dr. Chute added, had been certified as such for the past two years. His lordship expressed the hope that the witness-box would be thoroughly fumigated before the next day's proceedings of the court, and exhibited surprise that the Segregation Act had not been enforced in this particular case. He asked how it was. Dr. Chute replied that that was more than he could say; the authorities were at fault. Expedition, however, was highly necessary, as the man's condition was very bad."

"MEDICAL v. LEGAL CORONERS."

UNDER this title Dr. Major Greenwood has contributed to the *Sanitary Record* a useful little article summarising the obvious fitness of members of the medical profession for the appointments to coronerships. He finds that the discretionary power of the coroner—that is, his power of deciding whether an inquest shall or shall not be held on a particular death—is one that could be much better wielded by a medical man than a lawyer; that viewing the body to a legal coroner must always be a farce—an unnecessary and unpleasant survival of custom,—but that to the medical eye the aspect of the corpse might suggest a point worth mentioning to the jury; and, lastly, that the weighing and sifting of evidence, though more properly a legal than a medical task, are only what every medical man in practice is doing daily and hourly, so that there is no reason to suppose that he would not be able to charge his jury as correctly and succinctly as any lawyer. With all this we are fully in accord, for similar sentiments and arguments have appeared in our pages not

infrequently; and as a matter of historical curiosity we beg to refer those of our readers who are interested in the question to a leading article in THE LANCET which appeared as long ago as July 26th, 1828. We do not reproduce the article, as it is a long one, though not too long for its subject, and highly contentious, having been written, it must be remembered, in highly contentious times. But it contains two most striking examples of deaths where the cause would only be apparent to a medical coroner. It is true a legal coroner might in similar cases obtain correct evidence from a medical witness, but he might not, and in either case, whether ill or well advised, he might charge his jury wrongly from a misappreciation of the relative importance of details. This position, which is also touched upon by Dr. Major Greenwood, seems to us to afford the most important argument of all in favour of the medical coroner. However good a lawyer a coroner may be he will be ludicrously in the hands of his medical witnesses, whose evidence in nine cases out of ten will form the crux of the matter. Good sense will go far to supply the absence of familiarity with such legal lore as is ever required in a coroner's court, but the best and most sensible lawyer living cannot evolve from his inner consciousness an acquaintance with the difficult questions of pathology that must often be discussed and elucidated before the jury can answer if a death has followed upon natural causes or not.

THE DIFFUSION OF SMALL-POX.

THE rise in attacks by small-pox in the metropolis of a fortnight back was fortunately not maintained last week, the 43 cases giving place to 26; but as many as 9 deaths were registered, the heaviest weekly mortality during the present year. Including cases from outside the metropolis, there were 47 patients admitted to hospital in the week, the number remaining under treatment at the close of the week being 151, having risen from 95 in three weeks. Of this increased total, 129 were in institutions of the Metropolitan Asylums Board, and 22 in Highgate Small-pox Hospital. At West Ham 30 fresh attacks were recorded, but no deaths. There was only 1 case at Walsall, 3 cases at Handsworth, and 4 at Smethwick. At Birmingham as many as 9 deaths were registered, whilst 48 new attacks were reported. Matters are again looking somewhat serious at Manchester, where 16 cases were heard of last week. There were 6 cases at Oldham, and 4 at Bradford. In several other towns single and double attacks were noted, and 3 deaths were registered at Portsmouth.

TOOTHACHE.

MR. MAIN NICHOL, in a communication to the *Dental Record*, advocates some new remedies for the various forms of pain familiar to most persons under the above heading. The dull, constant aching due to periosteal inflammation is, he thinks, more effectually relieved by means of a comparatively fresh aconite leaf than by the tincture of aconite, the former having greater strength and more persistent action. The gum over the inflamed root being dried, a piece of the leaf of suitable size is cut, and this is simply pressed into place, where, as a rule, it will remain as long as a capsicum plaster. Leaves may be kept moist in a tin box with a tight-fitting lid, in the interior of which is a damp sponge. In pyorrhœa alveolaris a common symptom is an intense itching, almost akin to pain and perhaps more intolerable, provoking a constant desire to rub the gums. This pruritis, probably the result of the chronic gingivitis, is homologous to eczema and readily disappears with the employment of one of the essential oils, notably that of peppermint, used as a mouth-wash or toothbrush tincture. By the way, we may remark that a great improvement upon the ordinary toothbrush where medicaments are to be applied to the gum, either with or without massage, is the so-called "indestructible toothbrush," in which the bristles are replaced by india-rubber, which was invented by the late Mr. Napier. Where pulps are acutely inflamed Mr. Nichol advocates the heroic treatment of drilling into them with the dental engine and maintains that the relief obtained more than compensates for the pain of the operation. Perhaps it does; but it must surely be rare to find a patient willing a second time to submit to a similar proceeding without an anæsthetic. On one point everyone will agree with Mr. Nichol—viz., that the exhibition of a little sympathy, if it will not relieve pain, will go far to enable the patient to bear it with fortitude. The sentiment expressed that every dentist ought to have had his own teeth stopped is one that will probably be re-echoed by most who have been unfortunate enough to sit in a dental chair.

THE ABUSE OF INFANT INSURANCE.

AMONG the different suggestions which have been made from time to time as to the methods best adapted to remedy the abuses connected with child insurance, one which emanates from the Belfast United Trades Council is worthy of more than a passing notice. It proposes to prohibit insurance companies from paying any sum insured in cases where a child's death has been proved to have been caused or hastened by ill-treatment or wilful neglect on the part of its guardians. A similar resolution was recently proposed by a coroner's jury in the same city, and both, we understand, have been forwarded for incorporation, in the form of an amendment, in Sir Richard Webster's Bill for the restraint of cruelty to children. The fairness of the proposition which they embody, as well as its practical character, cannot fail to commend it to all unprejudiced persons. We regret to learn that, as yet, the stability of the Bill is not such as to allow of its receiving this addition to its clauses, and we have accordingly to rest satisfied with a prospect of its possible admission at a later stage. If it be not found advisable to treat the matter, a special enactment dealing with the subject of insurance would perhaps be preferable. We would also suggest once more that instead of any sum of money the settlement of burial expenses up to a given standard should constitute the liability of insurance companies in all such cases. The principle is not a new one, and it obviates a great difficulty in dealing with this subject.

SPLENECTOMY.

EXCISION of the spleen has been performed several times, and with variable success. We believe that the first in this country was a case operated on by Sir Spencer Wells and recorded in the Pathological Society's Transactions, 1866. The conditions for which the organ has been successfully removed include cases of rupture, of "movable spleen," and of simple hypertrophy, with or without concomitant anæmia. On the other hand, splenectomy in leukæmia has been invariably fatal and is an unjustifiable operation. The value of the operation in simple hypertrophy or "splenic anæmia," as it has been called, was urged by Banti, whose monograph on the disease is well known. There may be no malarial history in these cases, and the degree of anæmia may be very slight; but the downward course is progressive, if slow. Banti argued that splenectomy might justifiably be resorted to in order to anticipate the subsequent development of anæmia and exhaustion. At the Middlesex Hospital recently Mr. Pearce Gould performed this operation in a case, presumably of the class described by Banti. The patient, a woman thirty-three years of age, was first admitted into the hospital under Dr. Coupland's care in April, 1893, with marked enlargement of the spleen and liver and a slight degree of anæmia,

but no leucocytosis. She remained under observation for two months and then returned home, it being thought well to defer splenectomy until a later period. In February of the present year she returned to the hospital, slightly more anæmic, and with some anasarca; she complained, moreover, of the weight and fulness due to the splenic enlargement, which was much as before, although with some apparent change in the position of the organ. Splenectomy was performed on April 14th by Mr. Pearce Gould, who made a long incision in the left linea semilunaris. The pedicle was broad and short and was tied with silk in seven ligatures. The abdominal incision was closed with three rows of sutures. The spleen appeared to be simply hypertrophied. The wound was quite healed on April 24th, and the convalescence from the operation was uninterrupted. Another marked indication of improvement has been in the increase in the hæmoglobin and red corpuscles—the former to 75 per cent., the latter to 4,650,000 per cubic millimetre, from 3,712,000 per cubic millimetre three days before the splenectomy. In connexion with this subject it is interesting to note that on April 25th Dr. James Murphy, at the Sunderland Infirmary, also removed a spleen from a woman aged thirty-eight. The patient's progress so far is very satisfactory.

SLAUGHTER-HOUSES.

ALTHOUGH the London Model Abattoir Society has effected some good work, as shown by its last report, much remains to be done. The committee describes itself as "persistently baffled in its attempt to set up a humane slaughter-house in London," while it also appears that the authorities at the Privy Council have in vain tried to find out how many private slaughter-houses exist in England. While legislation would appear to be urgently needed, there is but little prospect of its being effected. It is urged by the society, and with much reason, that a term ought to be fixed by Parliament, after which term no more slaughter-houses should be permitted to exist, or, if this cannot be adopted, that all slaughter-houses should be put under the most stringent regulation and constant inspection to prevent cruelty and the sale of diseased meat. It is not a pleasant idea that the number of slaughter-houses is unknown, since this fact is sufficient to imply a want of supervision, and those who have any acquaintance with the subject will well know what the consequences must be of leaving such persons as those employed in this business to do just as they please without check or hindrance. It is a great reflection upon London that it does not possess a model abattoir in spite of all the efforts of the society; while, on the other hand, it is satisfactory to notice that twenty-one provincial towns have set up these very necessary establishments, many of which pay well. London ought to have not one, but many.

DIPHTHERIA AT THE LEAVESDEN SCHOOL.

THE guardians of St. Pancras have recently received an important and interesting report from Dr. J. F. J. Sykes, the medical officer of health for that parish, on an outbreak of diphtheria in the Leavesden School. The school has for some years been under exceptionally favourable conditions, and has had as its medical officer Mr. Adams Clarke, whose knowledge and interest in school hygiene are well known. In some manner, which defied all attempts at investigation, diphtheria was introduced into the school, and, spreading evidently from child to child, infected forty-eight, six of whom died. Dr. Sykes made searching inquiry into all the circumstances of the outbreak, and while unable to determine the source of infection of the first case, he was able to point to certain conditions which he assumes, and no doubt correctly, had fostered the spread of the disease. The condition which of all others was calculated to contribute to this result was insufficient air space for the children in the school. The guardians cannot deny that they knew of this condition, for it is one which has constantly been pointed out to them by their medical officer; nor, indeed, are they without experience of the evil effects of overcrowding, for both Mr. Adams Clarke and Dr. Bridges attributed the prevalence of ophthalmia, which infected the school in 1886, to the same cause. The lesson is now again taught in a manner which cannot fail to have effect, and, credited as the guardians may well be with the sincere desire to do the best for the children under their care, they must henceforth regard the prevention of overcrowding as an absolute necessity for the maintenance of the health of the children. To prevent the admission into the school of an undue number of children is absolutely within their own power. They have the advice of their medical officer, which is ample justification for incurring any extra expense which may be necessary to obviate the overpopulation of the school buildings, and they have the experience that ophthalmia and diphtheria in the school have been definitely attributed to this cause. We do not doubt that they will without delay take all the necessary steps to prevent its repetition.

LONDON POST-GRADUATE COURSE.

ON Monday, May 7th, the Summer Term will commence. Demonstrations and lectures will be given by the staffs of the following hospitals: on Diseases of the Chest, at the Hospital for Consumption, Brompton; on Diseases of Children, at the Hospital for Sick Children, Great Ormond-street; on Nervous Diseases, at the Hospital for the Paralysed and the Epileptic, Queen-square; on Diseases of the Eye, at the Royal London Ophthalmic Hospital, Moorfields; on Diseases of the Skin, at the Hospital for Diseases of the Skin, Blackfriars; on Diseases of the Mind, at Bethlem Royal Hospital; on Diseases of the Throat, at the London Throat Hospital, Great Portland-street; on Bacteriology, at King's College; and on General Medicine and Surgery, at the Central London Sick Asylum, Cleveland-street. The wants and wishes of the practitioner have been met as far as practicable. He can enter for all the lectures for one week or more, as suits his time and opportunities. He can take out half a course at any of the hospitals, and the lectures are so arranged that he can attend all of them during the term. Dr. Fletcher Little, the secretary, 32, Harley-street, will supply all necessary information.

THE CONDITION OF THE RIVER THAMES.

SOME time ago we adverted to the improved condition of the lower reaches of the Thames, and we had occasion to comment upon a test carried out at the instigation of the chairman of the Drainage Committee of the County Council, which consisted in trawling the river with a small net off Erith. It was reported that there were captured in the net specimens of whitebait, jellyfish, and shrimps. This was looked upon as an indication of a much needed improvement having taken place in the condition of the river, but, as we pointed out, it would have been more satisfactory to have known the condition of the tide under which the experimental haul was secured, for it is well known that when the tide is close upon flood the water in the lower reaches of the river consists practically of sea water, and at this time it would be remarkable if it were not found to contain specimens of the above-mentioned fishes. Still more conclusive, however, on this point would appear to be the evidence which leaked out in the House of Commons last week, when Mr. Benn asked the Secretary of State for War whether the chief engineer of the Works Department at Woolwich Arsenal had on several occasions lately found the tubes of his condensers

choked with whitebait, and whether he would cause an endeavour to be made to prevent fish from being so sacrificed and the machinery from being blocked. Mr. Campbell Bannerman, in his reply, said that such an accident did occur about six months ago, but since a grating had been placed in the culvert there had been no further damage to machinery or sacrifice of whitebait. We are led to wonder whether the fish were in reality whitebait or the small fry of pure fresh-water fish, amongst which it is not improbable that dace and roach were included. It would be still more interesting to know whether, after all, such an occurrence is not evidence of the unsatisfactory state of the river, for is it not conceivable that the fish which blocked the condensers had only sought refuge in the comparatively pure and distilled water which, we imagine, would be discharged from the arsenal condensers? There is little doubt, however, that the condition of the water in the lower reaches of the Thames has improved considerably during the last few years, and we know of several instances in which pressure has been brought to bear upon the owners of factories situated on the banks of the river who have hitherto exhibited little care to prevent the pollution of the water with works' refuse. We congratulate the authorities on their vigilance in this matter. Contributing, doubtless, in a still greater degree to the improved condition of the river are the stronger and more satisfactory measures which have of late years been adopted in the treatment and disposal of the sewage at the Barking and Crossness outfalls. In view, indeed, of recent complaints there now seems reason to doubt whether the condition of the Thames below bridge is any worse than that above.

DEATHS UNDER ANÆSTHETICS.

A DEATH under an anæsthetic occurred recently in Mr. Lawson Tait's private hospital in Birmingham under painful circumstances. The patient was a lady who had been under Mr. Tait's care some ten years before, when she had been successfully operated upon. On the present occasion, having seen Mr. Tait, she was told it was necessary to undergo a slight operation. With this view the lady entered the house and was duly prepared for the operation. A preliminary examination proved her to be in good health, her organs free from disease, with the exception of the local ailment. One hour and a half after admission, Mr. Tait's assistant commenced to give the patient an anæsthetic composed of one part of chloroform and two parts of ether. Before the patient was fully under, her breathing became irregular and spasmodic, while her countenance became cyanosed and her pulse was observed to cease. The anæsthetic was at once stopped, and artificial respiration was carried on for forty minutes. No recovery took place. A necropsy seems by the report before us to have revealed congestion (? antemortem) of the vessels of the brain. Death was, according to the pathologist, due to cerebral coma, the result of apoplexy produced by the anæsthetic. This is so unusual a form of fatality that it would be of very great interest to the profession to have a full report of the pathological lesions made public. Hæmorrhage into the substance of the brain in persons the subject of arterial disease is reported to have followed the use of ether, especially when the patient has struggled and the ether has caused violent coughing and hence straining. In the present case no arterial or cardiac disease appears to have been present and no especial mention of struggling is made. The mixture employed is one largely used by Mr. Tait, and, as far as we know, has never yet proved fatal. The Vienna mixture is a similar compound, but contains more ether, that body being present in three times the amount of chloroform. We have also received reports of two deaths under chloroform which occurred in one day in the city of Sydney. In the first case, a single woman, aged twenty-eight, was chloroformed to allow of an operation being performed for the relief of left side empyema. She succumbed before the third stage of anæsthesia was reached, the respiration failing and finally ceasing. Chloroform was given from a mask. The patient was pyrexial, the heart displaced by the effusion, and her general state one of great gravity. Artificial respiration failed to restore the patient. We are not told whether the fluid was at once liberated upon the dyspnœic state becoming pronounced. The other case is of a far different kind, and one which we venture to think cannot but show, if proof be needed, that druggists are not sufficiently qualified to practise as dentists, and should not undertake so serious a matter as the removal of twenty-four teeth at one sitting when the patient is under the influence of chloroform. It is the consensus of opinion that nitrous oxide gas should be used in dental practice, and that when that is insufficient the patient should be given a general anæsthetic in her own home under the same rigorous conditions as to dieting, posture, and general precautions as are adopted when a surgical operation is undertaken. The patient, a woman aged twenty-six, went to a druggist's shop, where a medical practitioner gave her chloroform in the afternoon. She was very timid, and became unconscious in about fifteen minutes. About half an ounce of chloroform was given from a mask, which was taken off the face "every now and then." The patient sat in an inclined chair. During the extraction she screamed, and after twenty-four teeth were pulled out she collapsed and never recovered. She turned very white. The druggist said he often took out as many teeth at one sitting, and had once before had a case when the patient collapsed, but eventually came round. We rely for our information upon the *Sydney Morning Herald*.

THE LIVERPOOL SCHOOL OF MEDICINE.

THE Liverpool School of Medicine, through the splendid munificence of Mr. George Holt, who has given the sum of £10,000 for the purpose of endowing a Pathological chair, has made a great stride, and we heartily congratulate the authorities of University College, Liverpool, on the good fortune that has befallen them. The early career of the medical school of the second city in the empire was reviewed in 1872, on the occasion of the opening of the new buildings, by Mr. Mitchell Banks, whose name will always be associated with Liverpool teaching, and his address, from which it will now be opportune to quote, will be found in our columns.[1] The school was founded in 1834, by a coalition of private lecturers, and with gradual fluctuations attained by 1872 to a number of students that necessitated the formation of new buildings to carry on the work if it was to be maintained at the level of the increased requirements of medical teaching. The original lecturers were Mr. Batty, Mr. Dawson, Mr. Formby, Mr. Gill, Dr. Malins, Dr. Philp, and Dr. Reynolds, and the first sessions were held in rooms in Back Colquitt-street, belonging to the Royal Institution, whence the original title of the school, the "Liverpool Royal Institution School of Medicine" was derived. From the beginning the Liverpool School of Medicine was recognised as a teaching body by the University of London, but the Edinburgh College of Surgeons for a time refused their acknowledgment. The school was not well supported by the town at first, and in 1867, when new buildings and increased accommodation were earnestly required, the subscriptions, after much and insistent begging, only amounted to £6000; and even this sum would probably not have been forthcoming had it not been for a generous donation of £1000 from Mr. Pemberton Heywood.

[1] THE LANCET, Oct. 19th, 1872.

It was hard to make the public comprehend the nature of the institution that was growing up among them, as is shown by the answer which Mr. Mitchell Banks said was too often given them when begging for assistance to the cause of science: "Science! why, what have we got to do with it? we're cotton-brokers." The original buildings of the school are to-day as they were after the expenditure of the money subscribed in 1872, but medical teaching has in the meantime not stood still, and we are exceedingly glad that by Mr. Holt's generosity the authorities will be enabled to march with the times. It must be mentioned that only three years ago Mr. George Holt endowed the Physiological chair with £10,000, at the same time appending to the endowment a sum of £5000, whose interest was to be devoted to the purchase of scientific apparatus. So that the three chairs—the Anatomical, Physiological, and Pathological—which the medical faculty of the university have decided ought in the proper interests of science to be endowed have now attained to that fortunate position—two through the munificence of one man; and the third through the generosity of the present head of the house of Stanley, a family that has always been closely interested in the welfare of Liverpool. We learn from *The Times* that at a meeting of the Council of University College, Liverpool, held on May 1st, it was announced that Lord Derby had telegraphed his intention to provide for the endowment of the Anatomical chair. An announcement was made at the same meeting that Mr. Henry Tate would present to the Tate Library a collection of books of the value of £5500.

THE QUEEN AND THE MANCHESTER SHIP CANAL.

A CORRESPONDENT writes to *The Times* stating that Sir William Jenner, Physician-in-Ordinary to the Queen, Lord Delamere, Major-General Carey, R.E., of the Local Government Board, and Mr. Leader Williams, engineer-in-chief, have recently made a trip in a small screw steamer along the Ship Canal. It is thought that this trip was made in view of the forthcoming visit of the Queen. There are, it is said, bad odours on the canal, and anyone who has read our special articles on the subject will not be surprised at this. Perhaps now that there is traffic on the canal its black waters may not be quite so stagnant; but as the canal is fed by the Irwell, the Irk, and other Lancashire streams its waters are bound to be objectionable. It was a fundamental error not to have enforced the purification of these rivers before opening the canal. The law with regard to the pollution of rivers has not in this case been efficiently applied. The result is that the canal is filled with foul water, and we can quite well understand the hesitation felt in high quarters about the wholesomeness or otherwise of a royal voyage along it.

TRAINED ATTENDANTS IN WORKHOUSES.

A LETTER of the Countess of Meath reminds us that the principle which directs the employment of trained assistance in relieving the illnesses and the frailties of mankind has not yet exhausted its resources. There is a field still open to the instruments of its activity in the condition of the weak and aged inmates of our workhouses. It cannot be said that even the sick in these institutions enjoy, save in a very partial measure, the privilege of trained nursing. In this direction there is certainly room for improvement in existing arrangements. The case of a great many others, infirm though not obviously diseased, is not much less urgent, yet it has been until a few months ago practically disregarded. Within this period, however, it has become a centre of public interest and the special concern of an association. The object of this body as defined in the letter already mentioned is to receive the names of trustworthy women willing to be trained as workhouse attendants and to provide them with occupation. No exceptional qualification in those employed, no elaborate course of instruction, no great outlay of money, is required for this purpose. All that is needed is virtually such an increase in the number of capable officials as is called for in the mere interest of health and cleanliness. Hitherto custom in our parochial charities has allowed the blind to lead the blind in this matter of attendance, and the incapable poor have had to tend each other. There is here, therefore, an evident occasion for reform, and the new association comes in good time to suggest and aid the means by which this may be carried out.

FRACTURED RIB AND DISLOCATED CLAVICLE AS A RESULT OF FITS OF VIOLENT COUGHING.

DR. SCHENCK, in a former number of the *New York Medical Journal*, reported the case of a fractured rib as a result of a violent fit of coughing, and now, in the same journal, Dr. M. J. Ahern narrates a case of a dislocated clavicle due to fits of violent coughing. A patient, eighteen years of age and in the last stage of phthisis pulmonalis, felt, during a violent fit of coughing, severe pain at the inner end of the right clavicle and found a lump there. This tumour disappeared on drawing his arms back, but reappeared at each severe fit of coughing. The lump was formed by the inner extremity of the right clavicle, which was dislocated forwards.

LECTURES AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following are the lecture arrangements at the Royal College of Surgeons of England for the summer. They are to be given in the theatre of the College at 5 P.M. precisely, on the Monday, Wednesday, and Friday in each week, a course consisting of three lectures. The Erasmus Wilson Lectures, by Mr. J. H. Targett, will be given on May 28th and 30th and June 1st on Some Interesting Additions to the Pathological Department of the Museum. Professor Raymond Johnson will lecture on June 4th, 6th and 8th, taking as his subject Tumours of the Breast. Professor W. Thorburn will give his lectures on June 11th, 13th, and 15th on the Surgery of the Spinal Cord and its Appendages. Professor T. Pickering Pick will lecture on June 18th, 20th and 22nd on Diseases of the Ends of the Long Bones in Children.

TYPHOID FEVER AND RIVER WATER.

A VERY complete report has been issued by Professor William T. Sedgwick, of the State Board of Health of Massachusetts, on certain recent typhoid fever epidemics, and the report, both by reason of its material and on account of its strikingly significant plates, reminds us vividly of the report on epidemic typhoid fever in the Tees valley issued last year by the medical department of the Local Government Board. The main outbreak discussed took place in the city of Lowell on the Merrimac river, and it is traced to the fact that, whereas this river water forms the principal supply to the inhabitants of the city, it receives sewage above, and that just antecedently to the actual outbreak in question there was an outbreak of typhoid fever at North Chelmsford, three miles above the water-intake from the river. It is also known that the excreta from typhoid patients at North Chelmsford were for some time passing directly into the stream. Indeed, graphic pictures are given of privies, &c., overhanging the banks, and there is the history of patients whose early typhoid symptoms were associated with such profuse diarrhœa as to compel them to spend much of their time in the privies in question. Dr. Sedgwick had in April, 1891, reported his conviction that there was "danger both constant and grave" in the use of the Merrimac river water under existing circumstances, so that the Merrimac

and the Tees cases in this respect also bear a certain resemblance. On the whole, 550 cases of typhoid fever came under investigation, some being attributed to canal-water, others to water derived directly from the river. But no doubt remains that the water-supply of Lowell is a grave danger to the inhabitants of the city. Judged by modern bacteriological tests, it stands significantly condemned.

THE PROPOSED NILE RESERVOIRS.

ADVERTING to the articles which have appeared in THE LANCET on this subject, we may call attention to the maps and plans which Mr. Norman Lockyer showed at the Royal Society's *soirée* on Wednesday evening last. They represented the course of that part of the River Nile which will be affected by the projected works, and the proposed dams at Assouan and Philæ and at Silsilah and Kalabshah, together with the reservoir at Wady Rayan. The object of the exhibit was to show the nature and dimensions of the proposed works and the vast tracts of valley country which would be affected by them. There is no need, as far as we are concerned, to call further attention to the great importance of this projects in regard to its political, engineering, and sanitary bearings, as well as in relation to the great cost which the execution of any scheme will entail. The subject requires to be thoroughly investigated and threshed out before any final decision is arrived at and any expenditure incurred.

A MEETING of the Odontological Society of Great Britain will be held on May 7th at 8 P.M., when a discussion on "Methods of retaining Dentures in Edentulous Jaws" will be opened by Mr. David Hepburn. Casual communications will also be given by Mr. Oswald Fergus and Mr. C. Robbins.

THE triennial festival of the governors and friends of Charing-cross Hospital will be held on Saturday, May 19th, when the Duke of Cambridge, K.G., will occupy the chair. The festival will be held in the Whitehall Rooms of the Hôtel Métropole.

THE annual dinner of the Volunteer Medical Staff Corps will take place on Wednesday, May 30th, at the Café Royal, Regent-street.

THE Pharmaceutical Society of Great Britain will hold their annual dinner at the Hôtel Métropole on Tuesday, May 22nd.

THE NEW SCOTTISH LOCAL GOVERNMENT BILL.

THE text of the new Local Government (Scotland) Bill has now been published, and, taken along with Sir George Trevelyan's clear and comprehensive statement in introducing the measure to the House of Commons, it is possible to form a fair estimate of the value of its main provisions. Those in which we are specially interested have to do with public health, and they are, in themselves, of the greatest importance, as bearing on the prospects of sanitation in the northern kingdom. The first seven sections of the Bill deal with the weakest spot in Scottish public health administration—namely, the constitution of the central authority. The present Board of Supervision is an altogether anomalous body. It has no proper relationship to Parliament, and its machinery is lamentably defective. We are glad to observe that the Secretary for Scotland was careful to draw a distinction between the defects in the constitution of the board and the work done by its present members. They have had great difficulties to contend with, and though on some questions we do not agree with the policy they have pursued, they have done work alike creditable to themselves and valuable to the local authorities under their supervision. The proposal is that the new Local Government Board shall consist of six members: (1) the Secretary for Scotland, as President; (2) the Solicitor-General for Scotland; (3) the Under-Secretary for Scotland; (4) a Vice-President; (5) a sheriff; and (6) a medical man holding a diploma in Public Health. The first two of these will be directly representative of whatever government is in power. The third is a permanent official of the Scotch Office, and will be a useful link of connexion between Dover House and the board in Edinburgh. The other three, who are to be nominated members appointed by the Crown, will form the working department located in Edinburgh. The vice-president, who, in the absence of the Scottish Secretary, is to be chairman of the board, will, we may assume, be a man of affairs, accustomed to public business, and capable of taking a broad view of the many questions involved in the local government of Scotland. The others will be specially qualified, one in law, the other in public health.

Looking to the constitution of the new board as just described, we are bound to express our satisfaction with it. Theoretically, the whole scheme embodied in the Bill is open to the objection that it continues, as heretofore, to put into the charge of the same body the two separate departments of Poor-law and Public Health. As a principle this is certainly undesirable, and in a large country like England the connexion ought not to exist. Where, however, the whole population is barely that of the English metropolis, it may well be argued that in the interests of economy it is not desirable to multiply public bodies. We observe, indeed, that one of the leading daily papers of Scotland rather suggests that there should have been a further amalgamation, so that Lunacy, Fisheries, Prisons, the Registration of Births, Deaths, and Marriages, Friendly Societies, Universities, &c., should all be centred in one huge department. Such a suggestion at least shows that in Scotland there are two sides to the question of the separation of public health from poor-law administration. It will be observed that the new Local Government Board is not merely to have the services of a medical officer. The proposal is that one of the three working members of the board should himself be a medical man, with a right to speak and vote on all questions of local government. This is a most important and valuable provision. It is a long way short of the almost unanimous desire of the profession that there should be a department of Public Health, with a responsible Minister as a member of the Government, but it is a step in the right direction. The board will have the power to "appoint, in writing, such inspectors, clerks, and other officers, with such salaries, to be paid out of moneys provided by Parliament, as the board may, with the sanction of the Treasury, determine." Obviously this includes the power to appoint medical officers or inspectors; but looking to the fact that no medical inspectors have ever been appointed by the Board of Supervision, it would have been better had the clause been drawn so as to leave no doubt as to the purpose of the Government in conferring this power on the board. The secretary and officials of the present board are to be attached to, and under the control of, the reconstituted authority, and this, of course, is as it ought to be.

Part II. of the Bill relates to the constitution and election of parish councils, and Part III. transfers to the councils so elected the duties of the present parochial boards. The number of members of a parish council must not be less than six or more than thirty-six, and these bodies will in various ways be brought into relationship with the existing county councils and district committees. They will appoint

representatives to the district committees, as the parochial boards have done in the past. The district committees will continue to act as local authorities for the carrying out of the Public Health Acts, and in this way the large areas and valuations necessary for satisfactory health administration will be continued. At the same time the new parish councils will be able to take charge of many local matters too minute and detailed to be satisfactorily managed by the district committees. They will have the power to provide or acquire buildings for public purposes and grounds and buildings for public recreation. The Scotch Public Health Act enables any two householders to call the attention of the local authority (i.e., in rural localities, the district committees) to any neglect of enforcement of the Public Health Acts, and in the event of failure by the local authority to attend to notice so given, the householders have the right of appeal to the Board of Supervision. Similarly, the Local Government Act of 1889 gives to any five ratepayers right of appeal to the county council against the proceedings of district committees, and it also gives the county councils themselves a right of appeal to the Board of Supervision regarding any neglect by district committees to carry out the Public Health Acts. These several rights, heretofore respectively invested in householders, ratepayers, and county councils, are now to be transferred to the parish councils. This is likely to be of very considerable consequence in carrying out the minutiæ of sanitation in every parish. It is a trite saying that what is everybody's business is nobody's business, and it is therefore very seldom that householders or ratepayers have thought of exercising these powers, even if or where they knew of their existence; but when these duties are specifically laid on a public body constituted by Act of Parliament, and provided with a clerk to carry on its correspondence, it is certain that the ninety-sixth clause of the Public Health Act will be instilled with new vitality.

One of the most valuable principles embodied in the Scotch Public Health Act has been the power to form special districts for the purpose of carrying out certain schemes of sanitary improvement and of assessing the cost of these schemes on the districts primarily benefited. Unfortunately, in the past this power has existed with regard only to two subjects—water-supply and drainage; and since the creation of the county councils under the Local Government Act of 1889 no complaint has been more general than that of the absence of similar power with regard to other sanitary procedures, and especially with regard to the scavenging and cleansing of populous villages. The new Bill provides the necessary remedy, and on this account alone it ought to be widely welcomed by rural authorities. It is proposed that the purposes for which special districts may be formed shall now be extended so as to include three additional groups: (*a*) the lighting of streets, common stairs, passages, &c.; (*b*) the scavenging and removal of dust, ashes, and refuse, the providing of lands for the deposit, treatment, and disposal of such refuse, the erection of public waterclosets, latrines, &c., the watering of streets, the compulsory cleansing of common stairs, courtyards, pavements, &c., the formation, improvement, paving, and maintaining of streets, the formation of foot pavements by owners of premises abutting on streets, and the naming and numbering of streets; and (*c*) the provision of public baths, washhouses, and drying grounds. It will be seen that these proposals are more or less equivalent to the sections of the English Act regarding the granting of urban powers to rural authorities. An important point is that the costs involved in carrying out these provisions will fall to be levied within the special district "along with, and as an addition to, the public health rate." In Scotland the present public health rate for all purposes is limited to 2*s.* 6*d.* per pound of assessable rental. In rural districts this is often found insufficient even for water and drainage, and to enact new sanitary provisions without at the same time making it financially possible to bring them into force would be worse than farcical. With regard to the special districts, the parish councils are also usefully to come in as constituting the whole or part of sub-committees of management which may be appointed by the district committees with the sanction of the county councils. Another part of the new Bill deals with the power of county councils and district committees to acquire land for public purposes. In Aberdeenshire and elsewhere almost insuperable difficulties have been met with in obtaining sites for hospitals, and no doubt the Government has had this specially in view in proposing that in future it shall not be necessary to go to Parliament for this purpose.

So far we have little but praise for the Bill as it stands. There are, however, one or two very serious omissions. The chief of these is that from beginning to end there is nothing giving power to district committees to regulate, with reference to the health of their future inmates and of the general public, the erection of new buildings. Sir George Trevelyan may have thought that such a subject might more properly come within the scope of a new Public Health Act, but most of the rural authorities will probably think that in this matter half a loaf would be a great deal better than no bread. No doubt, throughout the Bill many details will be found open to discussion or amendment, but it is sincerely to be hoped that party feeling will offer no obstruction to the passage of a measure so fraught with good to all classes of the people of Scotland.

CHOLERA.

THERE appears to be a good deal of doubt as to the exact nature and causes of the epidemic which has been, and still is, prevailing at Lisbon. On the one hand, the Medical Society of that city and Dr. Montaldo, who was sent as a special delegate from Spain to investigate and report upon the nature of the disease, have declared it to be Asiatic cholera, but in a mild form, and the latter attributed its introduction into Lisbon to a merchant vessel from Cape Verd; on the other hand, there are many medical men at Lisbon and others—to say nothing of the Government officials—who do not at all agree with this view and point to the insignificant mortality in corroboration of the correctness of their opinion. The bacteriologists who have examined the excreta for comma bacilli do not seem to have satisfied themselves that they have discovered any micro-organism which fulfils all the descriptions and cultivation tests of Professor Koch's bacillus. Photographs of the results of bacteriological observations, together with clinical reports of the cases, have, meanwhile, it is stated, been forwarded to Berlin and Paris.

The disease towards the end of last month prevailed extensively in Lisbon, many hundreds of individuals having been attacked in the course of a few days, and several fresh cases are still occurring daily, but the epidemic is stated to be now rapidly declining. Some cases have occurred at Castello Bianco, close to the Spanish frontier, and several villages on the left bank of the Tagus are also stated to be contaminated. As we have already said, the mortality, according to the published reports, seems to have been very small indeed compared with the number of recoveries, which is quite at variance with what takes place in an epidemic of Asiatic cholera; the recoveries ensue speedily after attack, and the disease has not extended to Oporto, although there has been constant and unrestricted communication between that place and Lisbon. Typhoid fever is also stated to be prevalent at the present time in Lisbon. All this points to water contamination, and it appears to us that both the present outbreak of choleraic diarrhœa and the occurrence of cases of typhoid fever may be fairly attributed to this as a cause. A water-supply which is rendered impure by being contaminated with the products of sewage is a perpetual source of danger and under certain climatic conditions—of temperature especially—may give rise to localised outbreaks of disease allied to that

prevailing at Lisbon at present. Obviously such outbreaks, occurring at a time when epidemic cholera has recently prevailed in Europe and may be revivified later on in the year, excite and call for increased vigilance on the part of all sanitary authorities; but we are not disposed to regard the local epidemic at Lisbon with any grave anxiety as far as this country is concerned. We have already had cholera introduced here from countries closer to, and with freer and more frequent communication with us than Portugal.

As far as this country is concerned we are content to place our main reliance upon sanitary safeguards, and to see that these are made sufficient to prevent cholera or any other dangerous disease from taking root among us when introduced by arrivals from abroad. It is, first of all, by securing that our water supplies are good and protected from contamination, and by attention to hygiene and cleanliness, that the public health can be protected. The sanitary survey of this country, undertaken under the special orders issued to the sanitary authorities of our various ports, should enable them to discover and remedy any sources of weakness that may exist.

TELEPHONES AND THUNDERSTORMS.

SUBSCRIBERS to the telephone, whilst fully recognising its usefulness, have long been familiar with its occasional irregularities. They have only lately, however, learnt that it also has its risks. The "strange story" of a telephone is thus recounted by an eye witness:—"I now hung the receiver on its hook just as the storm was at its height and in a few minutes a tremendous flash occurred, sending a shower of sparks from the receiver to the transmitter and to the several metallic parts of the telephone, including the bell connexions, such as would have proved fatal to the hearing if not to the life of any listener." The possibility of such an occurrence cannot be doubted. With proper precautions, however, the risk becomes inappreciable. In the absence of data impossible to obtain it is difficult to estimate the actual amount of danger incurred by anyone who might happen to be using the instrument at such a moment. It seems in no way probable, however, that, thus subdivided into a "shower of sparks," such a discharge would prove directly dangerous to life. That it might produce local effects of a serious nature and even inflict irreparable injury on the organs of sight and hearing there seems no reason to doubt. It will at least be wise for anyone not wishing to demonstrate this interesting point by actual experiment on his own person to take the simple (though not quite adequate) precaution of abstaining from the use of the telephone in the presence of a thunderstorm. It is to be remembered that any such electrical apparatus becomes for the time being a "lightning conductor," and if danger is to be avoided, a lightning charge gaining access to such a conductor must be provided with an efficient means of "putting itself to earth." It is in recognition of this fact that telegraph and telephone instruments connected with overhead wires are or ought to be provided with a "protector" or "lightning-arrester"—in other words, with the means of carrying a strong current to earth without its passing through the instrument. It is also because of the careful adoption of this precaution that a telegraph operating room has been regarded as the safest refuge in a thunderstorm. An overhead wire may be invaded by strong currents in more ways than one. It may be directly "struck" by lightning or more probably it may become the seat of those "induced" charges and discharges which must to some extent always occur during an electrical disturbance in its vicinity. Thus—speaking roughly and apart from many complications—the thundercloud charged with electricity of a certain polarity "induces" in the wire a charge of opposite sign. When the flash ("the disruptive discharge of the storm-battery") occurs the induced potential in the wire suddenly subsides by oscillating disruptive discharge, and equilibrium is established with the nearest oppositely charged conductor. But in the parts of the telephone itself which are not in metallic connexion with the wire there will have been an induced charge of opposite sign to that in the wire, and if this charge become so great that the potential is sufficient to overcome the "resistance" of the intervening air space a discharge by sparking must inevitably occur. The erratic behaviour of the telephone in question was doubtless a manifestation of phenomena such as these. The "clacking" sound also described might have been caused by the oscillating discharges of small induced currents, even in a protected instrument, and could be of no moment so far as danger is concerned.

From the foregoing considerations certain obvious precautions suggest themselves. On the part of the public it will be wise not to handle the telephone during a thunderstorm. On the part of the telephone companies it is to be expected that the recognised necessity of having each instrument duly protected will be strictly carried out. With these two precautions supplementing each other immunity from danger is practically secured. But even these can scarcely be said to provide for every possible contingency. The occasional eccentricities of lightning conductors are well known and the precaution in the hands of the public does not cover, for example, such a case as the following:—Suppose a telephone wire passing from London to Brighton to encounter an electrical disturbance, say, at Redhill. This might not be known at either end of the wire (and therefore no precaution taken) until the fact is announced by some such alarming demonstration as the one above described. It thus becomes of the greatest consequence to have a reliable "protector." The form which this ought to take will depend upon individual expert opinion. One of the devices adopted by the Post Office for this purpose (and it is difficult to imagine a better) consists of two metal plates faced with platinum, one connected with the line and the other "put to earth," the discs being separated by a perforated mica plate. Such an arrangement affords insulation for ordinary working currents, but allows a loophole of escape for those of high potential. The currents in question would easily spark across the minute air gap, and so pass harmlessly to earth. Although recent figures show that whilst in Hamburg the proportion of telephone subscribers to population is 1 to 40, in Berlin 1 to 78, in New York 1 to 167, and in London only 1 to 636, still the actual number of those using the telephone in this country represents an enormous aggregate. To this class, of which medical men form an increasing item, the telephone has become a convenience and almost a necessity. With proper precautions it need not be a danger.

THE ORGANISATION OF THE SEVENTH INTERNATIONAL CONGRESS OF HYGIENE.

WE have received further circulars of invitation and programmes of procedure for the Seventh International Congress of Hygiene, which, as already announced, will meet at Budapest from the 2nd to the 9th of September next. We regret to say that these circulars, though showing some improvement in the method of organising the Congress, still indicate that the errors committed at the last Congress, when it met in London, will be repeated and perhaps intensified at Budapest. There are to be no less than nineteen sections of Hygiene and seven sections of Demography; and, so far back as March 31st last, 437 papers had been announced on Hygiene and 98 papers on Demography. What will be the use of 535 papers? Who will ever read them? When the work of a Congress is so split up into small sections it cannot hope to exercise any great influence. The number of sections would not, however, matter if, by the side of the meetings of the sections, there were a few plenary meetings at which the Congress, as a whole, could express its opinion on four or five great questions. The only attempt made in this direction is with regard to the question of diphtheria. An international committee, on which fifteen nationalities are represented, has been appointed to prepare the discussion on Diphtheria; and on Sept. 4th the Sections I., II., and V.—namely, Bacteriology, Prophylaxis, and the Hygiene of Children—will meet to discuss the subject. It is to be hoped that the International Committee on Diphtheria will issue a report on the question printed in the three leading languages, terminating with one or two short practical resolutions on which a vote can be taken. Even then an expression of opinion from three sections out of a totality of twenty-six will not be very influential or conclusive, but it will be better than nothing. The great function of these Congresses is to influence Legislatures, and this can only be achieved when the entire

Congress adopts a few resolutions dealing with questions that are urgent and practically ripe—such as, for instance compulsory vaccination, notification of infectious disease, disinfecting, the abolition of quarantine, the prevention of overcrowding, water supply, drainage, &c. The whole world would know what is done at a plenary meeting; it would be reported in every newspaper, while it is impossible to render public what is done in twenty-six different sections. Yet hygiene is a science which depends on the popularity of its doctrines for its success. Its principles have to be applied not by experts, but by the entire population; therefore publicity is the very soul and being of such a Congress, and we repeat that it is absolutely impossible to give satisfactory publicity to the proceedings of twenty-six sections, discussing more than 500 papers. There is no reason why the few persons who take interest in these hundreds of papers should not discuss them in the morning. This, however, should not prevent the real work of the Congress—that of giving universal publicity to the questions that are ripe for legislation and of making known to the world at large those principles and facts of hygiene that are recognised as true by the majority of hygienists. No vote of a mere sectional meeting will achieve this end.

We are glad to note, however, that arrangements have been made for special afternoon meetings "for the discussion of questions in which wider circles of persons are interested. These questions will be laid before the public in the shape of popular lectures." Probably this implies that lectures to the outside public will be delivered. Could not this be converted into plenary meetings of the Congress? Resolutions carried in sections and dealing with practical administrative questions will be submitted to the Congress as a whole at the closing meeting. This means that the Congress, as a whole, cannot hear the arguments for or against, but will on certain points have an opportunity of approving or disapproving some of the work of some of the sections. This, we take it, is not a sufficient expression of opinion.

In all other respects the Congress seems to be well organised, and all who know the Hungarian people will know how cordial is their hospitality and how warm-hearted will be their welcome. The Congress is under the patronage of the Emperor of Austria, acting in his capacity of King of Hungary. His Imperial and Royal Highness Archduke Charles Louis has been appointed to act as deputy patron and will open the Congress in person on Sunday, Sept 2nd. The sectional meetings will be held from 9 A.M. to 2 P.M. every day of the week excepting the Thursday, which will be devoted to short excursions, and arrangements are being made for lengthy excursions after the Congress.

THE ROYAL SOCIETY CONVERSAZIONE.

THE occasion of the first annual conversazione of the parent scientific society drew together on Wednesday last a large number of Fellows and friends. Seldom has a meeting been so representative of all the sciences or of the various scientific societies which now form the numerous offspring of the Royal Society. Nor could it be said that the exhibits failed to represent fairly almost every branch of scientific study, each section appearing to share equally the honours of exhibition. In previous years electricity occupied probably more space than other departments, and it was an arrangement which, in view of the rapid progress that has been made, was inevitable, and to which few could offer any objection in view of the beautiful and fascinating phenomena exhibited by the high frequency current. New phenomena in vacuum tubes, so ably demonstrated in previous years by Professor Crookes and Mr. Tesla, were left safely in the hands of Sir David Salomons on the present occasion; while amongst other electrical experiments which possessed features of especial interest those of Professor Silvanus Thompson, in which metal discs, iron filings, and copper eggs were shown rotating at an amazing speed on a cheese-plate placed in the field of a revolving magnet or in a rotatory magnetic field, should be mentioned.

Both electricity and chemistry were represented in the electric furnace exhibited by M. Henri Moissan, and considerable curiosity was excited by the specimens of vanadium, chromium, molybdenum, tungsten, and uranium, shown for the first time in practical quantity in the elementary state. The furnace consists of limestone possessing a cavity which holds a crucible composed of a mixture of carbon and magnesia, placed between two powerful carbon electrodes. A temperature of about 3500° C. is produced; the metals are reduced by heating a mixture of their oxides with finely divided carbon, and for this purpose a current of about 600 ampères and 60 volts is employed. There were constant crowds around the exhibit of Mr. Eric S. Bruce, M.A., who kept his hearers interested with his experiments in persistence of vision by means of his improved aerial graphoscope, which, besides showing the general effects of persistence of vision, is found to be capable of demonstrating special phenomena not shown by other instruments. Thus there were shown the difference in intensity between real and incidental images, and the gradual fading of incidental images; the curious multiplication phenomena displayed when objects in motion are projected on the incidental disc; and the persistent "mirror" effect. Of microscopic work there was an excellent display; but perhaps Professor Marshall Ward's apparatus, employed for observing and measuring the growth of bacteria, fungi, and other micro-organisms under different conditions under the microscope, attracted an unusual share of attention. In this apparatus the essential feature is the culture cell, which has a quartz floor and is capable of holding large quantities of water, and thus, while letting the light rays pass, does not rapidly vary in temperature. By the side of the culture cell containing the hanging drop in which the organism is under observation is an exactly similar cell, but with a small thermometer in it, the blackened bulb of which is in the cell and gives the temperature inside the latter. In spite of the difficulties involved in showing such experiments away from the laboratory, Professor Ward succeeded in showing an organism in actual growth. A photograph taken by means of bacteria, in which the inhibitory action of light is taken advantage of, formed not the least wonderful object of this exhibit. Mr. Henry P. Fleuss exhibited a mechanical pump for the rapid production of very high vacua comparable with those obtained by a Sprengel (mercury) pump. By its use it is stated that experiments formerly occupying hours can be conducted in as many minutes. An invention of some importance was explained by Mr. J. Wimshurst, whose name is so well known in connexion with electrical machines. It consists of an improved method of communication between shore stations and lightships and from the models exhibited appears to depend upon an arrangement in which suitably wound coils of insulated wire are fixed to the swivel pin of the moorings, the one coil being in communication with the shore station and the second coil in communication with the ship.

Chemiotaxis and inflammation were illustrated in the specimens exhibited by Mr. W. B. Hardy and Dr. Kanthack. Films are prepared of blister fluid and are stained to show the various kinds of leucocytes present in the fluid. The blisters were prepared by vesication or had appeared in the course of disease, such as pemphigus, vaccinia, and variola. In some cases it is shown that the eosinophile or non-phagocytic leucocytes are very numerous, relatively more numerous than the other leucocytes, showing that there is what might be called a selective "chemiotaxis." In the earlier blister the eosinophile cells are more numerous than in the later ones. A specimen was placed under the microscope showing that the so-called neutrophile granulation is really eosinophile, and that during some stages of inflammation the eosinophile granulation of the finely and coarsely granular cells is greatly increased. Space forbids more than mere allusion to other things of interest; such are, for example, the excellent maps and plans which accompanied the recently published report on Nile reservoirs, exhibited by Professor Lockyer; the ink-recording pyrometer of Professor Roberts Austen; the microscopic specimens illustrative of the process of secretion in the skin of the eel, by Professor Waymouth Reid; the nerve elements from the ganglia of lobster embryos, by Mr. E. J. Allen; and so on. Finally, the peculiar properties of the magic mirror found an excellent exponent in Mr. J. W. Kearton, who had the electric lantern at his disposal in the meeting-room; while with the advantage of the same appliances Dr. D. H. Scott exhibited photographs from sections in Dr. W. C. Williamson's collection illustrating the microscopic structure of fossil plants from the coal measures, and Professor E. B. Poulton gave some illustrations of his recent work upon the influence of environment upon the colours of certain lepidopterous larvæ. Various coloured twigs and shoots such as occur in nature have been shown to

influence the appearance of many twig-like larvæ in such a manner as to conceal them. In the summer of 1893 certain larvæ were surrounded during their growth with lichen-covered twigs, and after a time they developed very distinct lichen marks upon the body.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6085 births and 3665 deaths were registered during the week ending April 28th. The annual rate of mortality in these towns, which had declined from 20·0 to 18·2 per 1000 in the preceding three weeks, rose again last week to 18·3. In London the rate was 18·5 per 1000, while it averaged 18·1 in the thirty-two provincial towns. The lowest rates in these towns were 10·2 in Croydon, 11·0 in Portsmouth, 11·9 in Plymouth, and 12·7 in Brighton and Derby; the highest rates were 21·6 in Burnley, 22·5 in Birmingham, 25·1 in Wolverhampton, 25·6 in Liverpool, and 25·9 in Oldham. The 3665 deaths included 558 which were referred to the principal zymotic diseases, against 528 and 518 in the preceding two weeks; of these, 203 resulted from measles, 148 from whooping-cough, 77 from diphtheria, 58 from scarlet fever, 28 from diarrhœa, 26 from "fever" (principally enteric), and 18 from small-pox. No fatal case of any of these diseases occurred last week in Halifax; in the other towns they caused the lowest death-rates in Brighton, Cardiff, Norwich, and Derby, and the highest rates in Liverpool, Wolverhampton, Birmingham, London, and Burnley. The greatest mortality from measles occurred in Nottingham, West Ham, London, Birmingham, and Wolverhampton; from scarlet fever in Burnley; from whooping-cough in Swansea, Liverpool, and Sheffield; and from "fever" in Gateshead. The 77 deaths from diphtheria included 63 in London, 3 in Birmingham, 2 in Burnley, and 2 in Sheffield. Nine fatal cases of small-pox were registered in Birmingham, 6 in London, and 3 in Portsmouth, but not one in any other of the thirty-three towns. There were 151 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 28th ultimo, against 95, 102, and 148 on the preceding three Saturdays; 47 new cases were admitted during the week, against 26, 31, and 59 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2253, against 2109, 2123, and 2172 on the preceding three Saturdays; 296 new cases were admitted during the week, against 261 and 260 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 304 in each of the preceding two weeks, declined to 255 last week and were 118 below the corrected average. The causes of 51, or 1·4 per cent., of the deaths in the thirty-three towns were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Nottingham, Blackburn, Leeds, Sunderland, Newcastle-upon-Tyne, and in nine other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Oldham, and Huddersfield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 21·2 to 17·5 per 1000 in the preceding three weeks, rose again to 19·0 during the week ending April 28th and exceeded by 0·7 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 17·2 in Perth and 17·3 in Leith to 21·3 in Aberdeen and 21·4 in Paisley. The 542 deaths in these towns included 28 which were referred to whooping-cough, 14 to diphtheria, 12 to "fever," 3 to diarrhœa, 4 to measles, 4 to scarlet fever, and 3 to small-pox. In all, 73 deaths resulted from these principal zymotic diseases, against 64 and 45 in the preceding two weeks. These 73 deaths were equal to an annual rate of 2·6 per 1000, which was slightly below the mean rate last week from the same diseases in the thirty-three large English towns. The deaths from whooping-cough, which had been 34 and 18 in the preceding two weeks, rose again to 28 last week, of which 11 occurred in Glasgow, 6 in Aberdeen, and 6 in Paisley. The fatal cases of diphtheria, which had been 10 and 4 in the preceding two weeks, rose to 14 last week and included 6 in Glasgow and 5 in Edinburgh. The deaths referred to different forms of "fever," which had been 6, 5, and 6 in the preceding three weeks, rose again to 12 last week, of which 10 occurred in Glasgow and 2 in Leith. Of the 4 fatal cases of scarlet fever 2 were recorded in Glasgow and 2 in Edinburgh. Two deaths from small-pox occurred in Leith and 1 in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 107 and 105 in the preceding two weeks, were 107 last week and were 42 below the number in the corresponding week of last year. The causes of 35, or more than 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 26·1 and 23·3 per 1000 in the preceding two weeks, rose again to 23·7 during the week ending April 28th. During the past four weeks of the current quarter the death-rate in the city has averaged 24·1 per 1000, against 18·7 in London and 17·5 in Edinburgh. The 159 deaths registered in Dublin during the week under notice slightly exceeded the number in the previous week and included 16 which were referred to the principal zymotic diseases, against numbers declining from 17 to 4 in the preceding three weeks; of these, 6 resulted from whooping-cough, 4 from measles, 3 from diarrhœa, 2 from scarlet fever, 1 from "fever," and not one either from small-pox or diphtheria. These 16 deaths were equal to an annual rate of 2·4 per 1000, the zymotic death-rate during the same period being 3·8 in London and 2·1 in Edinburgh. The deaths referred to whooping-cough, which had been 2 in each of the preceding two weeks, rose to 6 last week. The 4 fatal cases of measles exceeded the number recorded in any week since January last, and the deaths from scarlet fever also exceeded those returned in any recent week. The 159 deaths in Dublin last week included 25 of infants under one year of age and 43 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons differed but slightly from those recorded in the preceding week. Three inquest cases and 2 deaths from violence were registered; and 57, or more than a third, of the deaths occurred in public institutions. The causes of 14, or nearly 9 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

THE following officers have arrived from India on completion of a tour of service:—Brigade-Surgeon-Lieutenant-Colonel Lyons and Surgeon-Captains Eckersley and Edye. The following officers have arrived on leave: Brigade-Surgeon-Lieutenant-Colonel Andrews, Surgeon-Lieutenant-Colonel Quill, Surgeon-Major Wellings and Surgeon-Captain Stables. Surgeon-Lieutenant Mansfield has embarked for a tour of duty in India. The following officers have arrived on leave from Malta: Surgeon-Captains Ritchie and Macdonald. Surgeon-Colonel Colahan has arrived from the Cape on relief by Surgeon-Colonel Hamilton. Surgeon-Majors Flood and Nicholson have been posted to the Western District, and Surgeon-Captain Sparkes has arrived at the Tower from Warley.

ARMY MEDICAL STAFF.

Surgeon-Major-General William Collis is placed on retired pay. Brigade-Surgeon-Lieutenant-Colonel Fredk. Ferguson, M.D., retires on retired pay.

INDIA AND THE INDIAN MEDICAL SERVICES.

Surgeon-Major E. F. H. Dobson, M.B., I.M.S. (Bengal), is appointed to act as Protector of Emigrants and Superintendent of Emigration, Calcutta, until further orders. Surgeon-Lieutenant-Colonel Caldecott, 2nd Regiment, Central India Horse, succeeds Brigade-Surgeon-Lieutenant-Colonel Keegan as Residency Surgeon, Indore. Brigade-Surgeon-Lieutenant-Colonel A. Cameron, M.D., I.M.S., Bengal Establishment, is granted the temporary rank of Surgeon-Colonel while officiating as Inspector-General of Civil Hospitals, North-West Province and Oudh. Surgeon-Captain J. H. T. Walsh, first Resident Surgeon, Presidency General Hospital, is allowed furlough for one year from May 1st, 1894, or any subsequent date on which he may avail himself of it.

Surgeon-Colonel C. McD. Cuffe, C.B., has been appointed Principal Medical Officer of the Allahabad District.

NAVAL MEDICAL SERVICES.

The following appointments have been notified:—Fleet-Surgeon R. W. Williams, to the *Devastation*. Staff-Surgeons J. Hunter, to the *Benbow*. Surgeons: F. H. A. Clayton, to the *Benbow*; G. Wilson, to the *Racoon*; J. W. W. Stanton, to the *Vernon*; H. P. Shuttleworth, to the *Acorn*; and Charles Strickland to the *Empress of India*.

VOLUNTEER CORPS.

Artillery: 2nd Middlesex: Surgeon-Lieutenant Isaac Scarth, M.B., to be Surgeon-Captain.—6th Lancashire: Richard Humphreys, M.B., to be Surgeon-Lieutenant.—2nd Durham (Western Division, Royal Artillery): Surgeon-Lieutenant L. G. Dillon, M.D., to be Surgeon-Captain.—*Rifle:* 2nd Volunteer Battalion, the Gloucestershire Regiment: Surgeon-Lieutenant E. Dening is appointed Lieutenant.—1st Volunteer Battalion, the Duke of Wellington's (West Riding Regiment): Surgeon-Lieutenant E. D. Wellburn resigns his commission.—2nd Volunteer Battalion, the Duke of Edinburgh's (Wiltshire Regiment): George Swinhoe, Gent., to be Surgeon-Lieutenant.

DEATHS IN THE SERVICES.

Surgeon-Major James Hay Blackwell, late Madras Medical Service, died at St. Andrews, N.B., on the 22nd ult., aged seventy-five years.

Brigade-Surgeon James Kellie, M.D., late of the 17th Lancers and Royal Horse Artillery, died in London on the 22nd ult. He was appointed assistant-surgeon in 1848, surgeon in 1857, surgeon-major in 1868, and retired on half-pay in 1880. He was at the siege and capture of Dhar in 1857, served with the 17th Lancers in Rajpootana and Central India, and was also present at the action at Zeerapore in December, 1858 (medal with clasp). The deceased officer was sixty-nine years of age.

Deputy-Inspector-General Henry Downes died on the 28th ult., aged seventy-four, at Springfield, Tiverton, Devon, where he had resided for some years. He was appointed assistant surgeon in the Medical Department of the Army in 1839, and served in the Crimea from Nov. 20th, 1854, including the siege and fall of Sebastopol (medal with clasp, Turkish medal, fifth class of the Medjidie). In 1866 he retired from the Service with the honorary rank of deputy-inspector-general.

Surgeon-General John Drope McIllree died on the 26th ult. at Esplanade-terrace, Bray, county Wicklow, an officer well known in Ireland, and, perhaps, better in Canada and Nova Scotia. On Saturday last his remains were interred in Mount Jerome Cemetery, near Dublin.

WATER FILTRATION AND ENTERIC FEVER.

We have on previous occasions called attention to the new forms of filter introduced into the German and French armies, and to the beneficial influence which has followed their employment in the reduced prevalence of enteric fever, in the French Army especially. The French War Minister adverted to this subject in his last official report. In epidemic outbreaks of enteric fever in French garrisons it has almost always been found that the water-supply has been at fault. The Chamberland filter, which is used in the French army, and that used in the German Army—the Nordtmeyer-Berkefeld—are both of them excellent filters. They give for a considerable time a filtrate free from microbes, and can be sterilised by being brushed and boiled in water for an hour. It is believed that experimental trials are being made with these filters in India, where enteric fever is terribly prevalent among our short service army, and we hope that the results of the experiments will be published.

NEW BARRACKS AT CROWNHILL.

The *Broad Arrow* states that the War Office authorities have completed arrangements for the construction of cavalry barracks at Crownhill, near Plymouth. It is estimated the works will cost over £80,000. The plans of the new barracks provide for the accommodation of a regiment of cavalry numbering between 600 and 700 men, with their proportion of horses. It is also intended to build a sewage farm in connexion with the barracks.

THE VOLUNTEER DECORATION.

It was announced in the House of Commons on Friday last, that Volunteers who had served in India and the Colonies would be entitled, on substantially the same terms as thos who had served at home, to the new decoration.

THE QUEEN'S BIRTHDAY CELEBRATIONS.

It is announced that the Queen's Birthday will be celebrated, in London, on Saturday, May 26th, and at all other Stations, Naval and Military, on Thursday, the 24th of the same month.

The half-pay appointment at the Tower has been converted into a full-pay one, and is now filled by Surgeon-Captain Elkington, from Eastbourne.

Correspondence.

"Audi alteram partem."

"THE SURREY DISPENSARY AND ITS STAFF."

To the Editors of THE LANCET.

SIRS,—Will you allow me, as the oldest member of the staff, to say a few words in reply to Dr. Ince? In the year 1854 Dr. Ince was appointed resident medical officer, and in 1856 he became a surgeon in the Indian army; his knowledge and experience of the dispensary are therefore limited to one or two years, whereas my own extend over forty-two years, and are up to date. Some years after Dr. Ince left us great changes were made at the dispensary. In consequence of the enormous increase of population and the doubling of the number of governors' letters, the work became so heavy that the committee gave the dispenser an assistant, and relieved the resident medical officer of the dispensing to enable him to devote nearly all his time to the visiting of home patients. On personal inquiry at "the Eastern," "the Public," and "the Bloomsbury" dispensaries I find the rule is essentially that of "the Public." "The resident medical officer shall visit all home-patients and shall call in the aid of the physician or surgeon in any case in which, in his judgment, further advice may be required," and this has been the rule and the practice at the Surrey for a great many years. Dr. Ince now wishes to restore the rule and practice of forty years ago, although they are totally inapplicable to the present time and the existing state of things. As regards late attendance, rapid disposal of patients, percentage of home visits, and having five or six females in the consulting-room at one time, I deny every one of Dr. Ince's charges. I am at the dispensary half or a quarter of an hour before my appointed time, I devote two and a half or three hours to some sixty patients, visit from twenty to thirty every month at their own homes, and never have more than two patients in my room at one time—one behind a screen, preparing for an examination of the chest or abdomen, whilst I am prescribing for the other; and what I say of myself will, I have no doubt, apply to my five colleagues. I will not trouble you now with a long letter, and will reserve what I have to say upon other matters for another occasion.

I am, Sirs, yours faithfully,

D. HOOPER, B.A., M.B., and M.R.C.P. Lond.,
Senior Physician to the Surrey Dispensary.

Trinity-square, S.E., April 30th, 1894.

P.S.—Will you kindly allow me to add a postscript to my letter? The revised rules are about to be *re*-revised by a joint committee composed of five governors and five members of the committee of management. Up to this time Dr. Ince (who is not a member of the monthly committee or of the medical committee, and not on the staff) is the only medical man who has had any hand or voice in the revision and reconstruction of the old rules; but I have reason to hope and believe that before the re-revised rules are submitted to the governors for adoption, and finally for confirmation, the medical committee, or some of its members, will be asked to give their opinions and suggestions respecting them, and that in the end they will not appear in their present shape. I wish also to add that I *do* plead guilty to *one* of Dr. Ince's charges—viz., that of having been on the staff for more than forty years—but I took no notice of it, because the committee, the governors, and the sick poor have not as yet made this fact a ground of complaint. The Surrey Dispensary is not like Guy's Hospital, where assistant physicians are waiting for promotion, and therefore there is no reason for the rule which, at Guy's, requires their seniors to retire at sixty.

EPITHELIOMA OF BOTH EXTERNAL EARS.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of April 15th, 1893, I recorded the case of a man aged seventy-six years who was suffering from a persistent and increasing ulceration of both external ears, which I regarded as malignant. Dr. Snow wrote the following week remarking on the rarity of the case, and at the same time raising the question whether the disease was really epitheliomatous. I shall be obliged if you will now permit me to record a final brief note of the case. The patient firmly declined any operative interference, his strength gradually failed, and he died from exhaustion on Jan. 13th, 1894. During the last few months of his life the destruction of the right ear steadily progressed, and its malignant character became more and more pronounced, until, at the time of his decease, the ear—as such—was scarcely recognisable, its place being taken by a large, fissured, fungating mass, attached by a broad base to the head, the discharge from which was very profuse and fetid. The disease of the left ear also extended, but much more slowly, and at the time of his death was scarcely so far advanced as the right at the time my first note was written. It bled rather freely at times, but the discharge, although constant, was never very troublesome, and there was scarcely any pain. After death I removed a small portion of this left ear, cutting through the cartilage. This was examined microscopically by Mr. W. A. Charlton of the Royal Infirmary, Newcastle-on-Tyne, and he kindly reports to me as follows: "Bundles of fibrous tissue are seen running through the specimen in various directions, easily recognised as long fibres which are stained red. Near the lower part is a well-defined band of cartilage enclosed by a layer of fibrous tissue. Just below this is a quantity of fibrous tissue infiltrated with a multitude of small round cells stained greenish, the result of the irritation of several branching processes of epithelium which are stained brown. Above the cartilage are several processes of fibrous tissue with columns of invading epithelium stained light brown. The invading epithelial processes, cell nests, and exuded round cells attacking the deep structures are characteristic of an epithelioma." The specimen, of which the above is a description, was also sent to me, and likewise a diagram showing the condition in an enlarged form. I am, Sirs, yours truly.

W. J. ERNELY SUMPTER.

Sherringham, Norfolk, April 16th, 1894.

RAW MEAT IN DIABETES.

To the Editors of THE LANCET.

SIRS,—I had used raw meat in the treatment of diabetes before the date (1873) to which Dr. Lauder Brunton refers in his letter in your last number. I had been led to do so by a report brought me by some travellers returning from the East, who stated that at one of the Mediterranean ports—I think Constantinople—there was a medical man who had obtained a great reputation for curing diabetes, and they promised to obtain for me particulars as to his mode of treatment. I was informed by them shortly afterwards that his remedy was the administration of raw meat. I tested this method on one or two patients in King's College Hospital, but without any notable result. It may be that this method deserves further trial, and perhaps some additional care, in the choice and mode of preparation of the meat. There is raw meat and raw meat; the dry, blanched veal of this country must be a very different thing from the dark juicy veal of the continent. This is a matter worthy of examination. I may here mention that, in order to be able to procure a constant supply of pulped raw meat, I have induced Messrs. Van Abbott to prepare for me a pulp of raw meat in a special manner, by which its tendency to rapid decomposition is prevented. By mixing a small quantity of pepsalia and cloves with the pounded meat we have found it to keep good for several days, so that it may be sent some distance into the country. I have used raw meat pulp thus prepared with advantage in many cases—in typhoid fever, in influenza, in follicular tonsillitis when only fluids could be swallowed, and in other cases. This pulp mixes readily with light broth or clear soup, or claret and water, or weak brandy and water, or with thin chocolate, or indeed with almost any agreeable fluid. Messrs. Van Abbott are making further observations for me in the direction of finding means of conveniently preserving this raw meat pulp from decomposition without altering its qualities.

I am, Sirs, your obedient servant,

I. BURNEY YEO, M.D.

Hertford-street, Mayfair, April 30th, 1894.

"THE ACTION OF ASPARAGUS ON THE KIDNEY."

To the Editors of THE LANCET.

SIRS,—It may be interesting to your readers if I give a few quotations on the action of asparagus, from an ancient work in my possession, published in 1654 by Nich. Culpeper, entitled "Pharmacopœia Londinensis, or the London Dispensatory." The work is most interesting in many ways, and were space and time of no importance I could give extracts, if not instructive at least amusing to the student of to-day. In dealing with "Roots," under which heading asparagus, or rather "sparragus," appears, he classifies them—1st, according to their "temperature," and 2nd, "to their properties." Concerning the former, he deals with roots "hot in the first degree," in the second degree, third degree, and fourth degree; and then "roots temperate in respect of heat," of which he gives "bears-breech, sparragus, thistles, mallows, garden parsnips, &c." Continuing under "Roots appropriated to the several parts of the body, and so they heat"—the liver—he gives asparagus with such roots as fennel, cinkfoy, parsley, rhubarb, &c. He also gives asparagus as a root heating the spleen, and also the reins and bladder. In dealing with the "property of roots," he classifies them as those that bind, cleanse, open, extenuate, burn, glutinate, &c., and he gives asparagus with those that cleanse. Lastly, in Chapter 14, "of medicines provoking urine," he writes as follows: "Urine is the thinnest part of blood separated from the thickest part in the reins. If, then, the blood be more thick and viscous than ordinary, it cannot easily be separated without *cutting* and *clensing* medicines;" and, again, "this is certain, that blood can neither be separated nor distributed without heat"; but "cool diuretics, though they further not the separation of the blood one jot, yet they *clense* and purge the passages of the urine. Those cold things which provoke urine, though they bite not, yet have they a nitrous quality whereby they open and clense." I offer no comment on the above; but, in conclusion, express my experience to be that the urine is decidedly more concentrated and less in quantity after eating asparagus. The reverse may present itself to many for this reason: asparagus appears on the table more often when extra wine is drunk than otherwise—viz., at dinner parties; but I think if anyone will in no case increase their alcoholic drink in any shape and eat this very pleasant vegetable, they will find the urine to be as I state.

I am, Sirs, yours truly,

Brigg, April 30th, 1894. ELLIOT DAUNT.

THE CHLOROFORM PROBLEM: A SUGGESTION.

To the Editors of THE LANCET.

SIRS,—I think the majority of your readers, whether English or Scotch, will agree in most points with "A London Anæsthetist" in the controversy which he has raised with the Hyderabad Commission.[1] As it is impossible to deal with even a single aspect of this question satisfactorily in a brief letter, I would here make only one or two remarks and offer a suggestion. In referring to the particular failure of the heart described by the Glasgow Committee, I suppose your Indian Correspondent means the fall of blood pressure to zero, which they observed to take place in a dog two minutes after the chloroform had been left off and after the recovery of the pressure. The Commission maintain that this could only have occurred as the result of accidental asphyxia. Now I have shown that in the cat, with moderate percentages of vapour, the heart frequently stops and becomes irregular one or two minutes after the inhalation has ceased, and, further, that the pupil, widely dilated at first, contracts to a line in ten seconds and all at once dilates widely after another minute or so. There can hardly be a doubt that, coincidently with this stoppage of the heart

[1] THE LANCET, March 10th and April 28th, 1894.

and dilatation of the pupil there must also take place that fall of pressure to zero observed by the Glasgow Committee. My suggestion simply is, therefore, that the experiment of the committee ought to be repeated, and preferably by neutral parties, not biased by preconceived opinions. Above all, I would suggest that it should be performed on cats, as they are not liable to the struggling stage as dogs are, and the question could be easily settled in them. For deeper anæsthesia, to show that this fall is then not so liable to occur, dogs would be preferable. Your Indian correspondent ignores the fact that Sir James Simpson, whose teaching was the same as Syme's, had a death from chloroform, and he has yet to learn that the latest fatality happened only the other day in the hands of their pupil, Mr. Lawson Tait.[2] One of the rules lately formulated by the Hyderabad Commission *re* the respiration, and which they regard as of "overwhelming importance," was not derived from the Edinburgh School at all, but was taken from Dr. Snow, who, indeed, was taken to task in the *Edinburgh Medical Journal* on the subject. I agree with your correspondent in believing that chloroform will kill in India as well as in England. A fatality lately occurred there in an adult, who got only one drachm of chloroform in four minutes—a case deserving the attention of the Commission.

I am, Sirs, yours faithfully,

Glasgow, May 1st, 1894. ROBERT KIRK, M.D.

*** We are informed that the anæsthetic used by Mr. Lawson Tait in the case alluded to above was not chloroform, but a mixture of one part of chloroform and two parts of ether.—ED. L.

"OPERATION FOR CURE OF CLEFT OF HARD AND SOFT PALATE."

To the Editors of THE LANCET.

SIRS,—I shall be glad if you will allow me to correct an inaccurate statement which I made at the last meeting of the Royal Medical and Chirurgical Society. In speaking of my operation for uniting cleft of the hard palate by carrying across the gap a triangular flap with a free anterior extremity I said that I had operated in six cases between the ages of one and two years, and in all with success. On referring to my notes I find that I have operated by this method on only three patients between the ages of one and two. Of the rest of my early cases, two were between the ages of two and three, and a sixth was three years and a quarter old. In each case the flap united well. I am, Sirs, yours truly,

Harley-street, W., May 2nd, 1894. N. DAVIES-COLLEY.

"BLOXHAM *v.* THE MEDICAL DEFENCE UNION."

To the Editors of THE LANCET.

SIRS,—Will you allow me to supplement your remarks on Bloxham *v.* the Medical Defence Union by a statement of the points of law as held by the Lords Justices of Appeal? The plaintiff's counsel submitted three main points—that the action of the council of the Union was *ultra vires*, that their action in supporting one of the parties rendered them liable for "maintenance," and that there had not been "due investigation" as required by the Articles of Association. The Lords Justices of Appeal, Lords Justices Lindley, Lopes, and Kay, held: (1) that the action of the Council was *ultra vires*, on the ground that, it being against natural justice to attack a man with his own money, the articles, as they did not expressly provide for it, must be construed as forbidding it; (2) that, as the Council disclosed no matter of professional conduct which would give them an interest in the case, they could not resist the imputation of maintenance; and (3) that as the Council had only heard the *ex parte* statements of Dr. Collie before deciding to support him there had not been due investigation as required by the Articles of Association. Upon the last of these points the Council submitted to judgment, in the form as stated in your remarks, of a perpetual injunction restraining them from expending the funds of the Union in the action of Bloxham *v.* Collie, with payment of all costs. I am, Sirs, yours truly,

Old Kent-road, S.E., April 30th, 1894. EDWD. C. BOUSFIELD.

[2] Birmingham Daily Post, April 27th, 1894.

"MEDICAL EDUCATION IN AMERICA."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of March 17th a correspondent, "W. E. R," writes that "the University of Pennsylvania is the only one making it compulsory for students to attend obstetrical cases before graduating." He cites Professor Hirst as his authority. This is an erroneous statement, and one which must be due to a misunderstanding on the part of your correspondent, as Professor Hirst is too well informed to make such a misstatement. The Dean of the University of Pennsylvania writes me that the order requiring students to take obstetrical cases before graduation was passed Oct. 21st, 1889, and the catalogue now announces that students are required to attend one case. The Harvard Medical School has required cases since the fall of 1882, at which time two cases were required. The number has been gradually increased until June, 1890, when the number required was six, which is now the requirement before graduation.

I am, Sirs, yours truly,

WILLIAM L. RICHARDSON, Dean.

Harvard University Medical School, Boston, Mass., April 21st, 1894.

"THE USE OF OPIUM IN INDIA."

To the Editors of THE LANCET.

SIRS,—The result of the inquiry by the Opium Commission has gone a long way to demonstrate that the number of people who consume opium in India compared with the total population is, after all, very small. All over the world people indulge in their customary stimulants, narcotics, or luxuries of some sort or other. The use of tobacco is the most generally diffused, and, on the whole, probably the least harmful habit, although it is not by any means always harmless, and the increased prevalence among small boys, of late, of smoking cigarettes is especially detrimental and to be deprecated—to say nothing of its being often a nuisance to other people. Alcohol reigns supreme in some countries, and the results of its abuse are too patent to need any remark. Compared with the harm produced by alcoholic intemperance, the injury caused by the use of opium in India seems to be insignificant. The opium eater is not, at any rate, a violent, excited, law-breaking member of society. The prohibition of its use, even were it practicable, would only lead to an increased consumption of alcoholic spirits or hemp drugs, and the effect of the cheap, vile country spirits on the natives of a hot country like India would simply be maddening. I do not think any competent and impartial observer can have any doubt on this subject. It seems, too, that it is the exception for opium eaters in India to go on increasing the quantity they consume; on the contrary, they get accustomed to a certain daily dose, and adhere to it. No one denies that cases of abuse occur, and it needed no commission to establish the fact. No doubt people are better without opium, as a rule; but conditions and circumstances alter cases, and there is, as Sam Slick observed, a great deal of human nature in man, who cannot be made good after a pattern and content to relinquish his "pleasant little vices" by prohibitory laws. I suspect that the overwhelming amount of evidence—native and European—produced in India to show that opium eating and smoking are not the parents of all the horrors and evils ascribed to them was rather a surprise to the Commission. As regards the political effect of such Commissions on the native mind it is to be feared that their tendency can only be to weaken the authority of the Government of the country. I am, Sirs, yours faithfully,

AN ANTI-FADDIST.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Assizes.

LIVERPOOL, like Manchester and Leeds, enjoys the advantage of a fourth assize, which is generally held in May. Mr. Justice Day is presiding in the Crown Court, and although it is not six weeks since the last assize there are two prisoners charged with murder and about sixty for other offences. It is to be feared that crimes of brutal violence are

again appearing almost in an epidemic form. A coroner's jury has to-day returned a verdict of wilful murder against a man who had caused the death of another man with whom he had been fighting. A woman is lying in the Providence Hospital, St. Helens, in a most critical state, her dying depositions having been taken a day or two ago. She is suffering from the result of kicks alleged to have been inflicted upon her by a man who is in custody. Another woman is lying in the Royal Southern Hospital in a most critical state, and her depositions were taken yesterday. She is suffering from a wound in the abdomen stated to have been inflicted upon her by her husband with a knife. In all these cases drink plays a more or less prominent part.

Habitual Drunkards.

The cases alluded to last week in the Manchester correspondence of THE LANCET have their parallels in this city in an aggravated form. One woman has been before the magistrates for the 300th time, several for more than 200 times, while 100 times is painfully frequent. These are all cases of females who, while in gaol are perfectly well and fairly well behaved. As a rule they are homeless; they get drunk and smash windows on purpose to get into gaol, which is practically their home. If the attention of legislators and philanthropists could be concentrated on this circumstance it is possible that a remedy might be found for this very grave scandal.

Lifeboat Services.

Referring to the annotation in THE LANCET last week there is every reason to expect that before long telegraphic or telephonic communication will be established between the Bar Lightship in the Mersey (some twelve to thirteen miles from the Liverpool landing-stage) and the lifeboat stations of New Brighton and Liverpool. It is also believed that additional measures for saving life will be adopted. It must not be forgotten that this communication with lightships and rock lighthouses might be of great service to the crews of the former and the keepers of the latter in cases of sickness. Even when the lighthouse or lightship could not be reached some medical advice might be given by means of the telephone.

May 1st.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Deaths under Anæsthetics.

THE frequency of cases under this heading has lately been an object of remark in our midst. Two cases on successive days were lately the subjects of inquiry at the coroner's court. One, a woman aged thirty-two, died at a private hospital, where she had gone for an operation. The difficulty in this case arose apparently from the heart stopping; the anxiety was increased by the patient's address not being known. The second case occurred at the General Hospital. An intemperate man aged thirty-two was about to undergo an operation for cellulitis after injury, when he at once succumbed. The number of these fatalities demand attention on the part of the profession.

Pound Day.

An annual custom is preserved at the Orthopædic Hospital of presenting a pound of anything—sterling or otherwise—to the institution. Groceries form the main substance of the gifts; one donor gave a pound of coppers on the present occasion. Some fifteen sovereigns were also received. Various and interesting were the forms in which the object was carried out. On the whole the hospital gained something substantial in kind as well as in advertisement by the attention called to this singular proceeding.

Small pox.

The proverb that it is an ill wind which blows no one any good has been exemplified in the activity of medical men in the practice of revaccination. The present epidemic has unquestionably proved the efficacy of vaccination as a protection agninst small-pox, and the figures published by the Health Committee testify to the benefit derived from its due performance.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Rights of Sanitary Authorities.

A CASE was tried last week in the Penrith County Court affecting the right of sanitary authorities to order the removal of infected persons to a public hospital under certain circumstances. The plaintiff, Henry G. Davis, photographer, Penrith, sued the local board of health for £50 damages, alleging that Dr. Robertson, the medical officer of the board, had committed a trespass by entering plaintiff's house on Oct. 2nd, and had, without plaintiff's consent, illegally removed Randolph Davis, son of the plaintiff, to the Fair Hill Infectious Diseases Hospital while suffering from scarlet fever. The plaintiff further alleged that in consequence of that forcible removal his wife, who was ill at the time, received a shock, which caused her death on Jan. 12th. His honour, giving judgment, sympathised with the plaintiff in the loss which he had sustained, but declined to consider that it was the result of the removal. There was no evidence before him that death was caused by the shock brought about by that removal; therefore he did not see that the local board ought to be held responsible either in law or equity for the much to be regretted loss which the plaintiff had suffered. He gave judgment for the board of health, but declined to say anything about costs.

A Question for the General Medical Council.

Mr. Stock, the county analyst, has brought before the Durham County Council the late case at Lanchester, which was dismissed on the grounds that morphine was not shown to be an essential of chlorodyne; and he suggests to the council the advisability of a question being addressed to the General Medical Council as to what constitutes chlorodyne. Mr. Stock forgets that it was shown at the trial, where the Pharmacopœia was produced, that the term chlorodyne was not recognised by the General Medical Council at all.

New Hospitals for Gateshead and Seaham Harbour.

It has been decided to build new hospitals for fever at Gateshead and also for the town of Seaham Harbour. The Gateshead Fever Hospital will be near the present one on Sheriff Hill.

Railway Ambulance Classes.

An examination of students in connexion with the North-Eastern Railway Ambulance Corps has been held at the Central Station, Newcastle, on which occasion seventy-three students presented themselves for examination. Surgeon-Major Hutton, the organising officer of the St. John Association, London, complimented the classes very highly on their efficiency. The lectures were given by Dr. Arnison.

The Reported Cholera at Lisbon.

A letter has been published in the Newcastle papers from the Portuguese consulate here contradicting the reported epidemic of cholera at Lisbon, saying that "the sickness is diarrhœa of no seriousness, curable in four days or less; it has existed for a month, but does not fill the hospitals; it is decreasing. There are no fatal cases."

Newcastle Hospital Sunday Fund.

At a late meeting of the Newcastle Hospital Sunday Fund it was decided that the sum of £1400 be awarded as a free gift amongst the various medical charities on our list, and that certain other sums should be expended in the purchase of admissions to the said medical charities. It was also decided that the future grants to the Royal Infirmary from this fund should be as follow:—10 per cent. of the gross amount of the annual collections together with 50 per cent. of the sum voted by the committee as the amount of the free gift for the year.

Interesting to Tramps.

At the Darlington Board of Guardians' meeting the board discussed plans for carrying out the cellular system at a cost of £1000, a committee who had visited Tynemouth and other places having reported in favour of that mode of dealing with tramps. It was said that experience had shown that the professional tramp should not be allowed to associate with workmen seeking employment who had to resort to the vagrant ward, as it would be decidedly prejudicial to the latter.

By the death of Miss Sarah Harrison, which occurred at Wakefield on Monday in her ninety-sixth year, some £30,000

or £40,000 will become payable to the Clayton Hospital and other local charities.

Mr. T. Taylor, a well-known surgeon in the Cleveland district and late of Brotton and Wetherby, died last week at Redcar.

Newcastle-on-Tyne, May 2nd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Medico-legal Appointment.

DR. JOSEPH COATS, lecturer on pathology at Glasgow University and the Glasgow Western Infirmary, has been appointed by Sheriff Berry to succeed the late Dr. S. J. Moore as medico-legal examiner for the city.

Golf Fatality at Dumfries.

Though we are accustomed to hear of fatal accidents in connexion with many out-door sports, particularly football, it is comparatively seldom that any very serious injury occurs at golf, which is, perhaps, matter for some surprise, considering the tremendous impetus of a ball just driven from the "tee." Such an accident, however, occurred on the Kingholm Merse, Dumfries, on Saturday last, when a lad of thirteen died shortly after receiving a blow from a golf ball. The boy ran, at a distance of about four yards, in front of a player who was in the act of "driving" the ball which struck him with great force on the back of the head, with the result above stated. While this excellent game is practically perfectly safe when played on a proper course reserved for the purpose it becomes really dangerous when played, as in the case just noticed, in a public park where other games are permitted.

Professor Gairdner on the Position of Italy as regards the Healing Art.

In opening the summer course of lectures in the University of Glasgow, on Tuesday last, Professor Gairdner gave an account of the International Medical Congress at Rome and made extended reference to the position of medical science in Italy in our day as compared with that which it occupied forty or fifty years ago. In discussing the latter part of his subject he observed that "whatever else was apparent, even to the superficial observer, one thing was quite certain—namely, that in medical matters Italy is striving hard to resume, if possible, the place which for so many ages she occupied in the vanguard of European thought and intellectual progress. In every leading centre men are to be found working upon the most advanced lines of pathological and medical inquiry, familiar, many of them, with several languages, and possessed of all the most modern ideas, the intercourse especially between Germany and Italy being immensely fruitful of late years. In several instances German or Teutonic professors have found their home and their field of instruction in the old Italian universities, just as Vesalius of Brussels did in the sixteenth century—a fact all the more remarkable when it is remembered that the Latin language has almost ceased to be the common tongue of professors, while the German occupation of North Italy was long one of the greatest political grievances of the Italians, a grievance only ended by the bloody battlefields of Solferino and Magenta." This great intellectual advance in respect of medicine Professor Gairdner declared to be even more striking to him than the large expenditure which is now being lavished on hospitals and means of teaching (as in the magnificent "Policlinico" of Rome itself) by a country greatly impoverished, as compared with her neighbours, as regards her available financial resources. And yet, said Professor Gairdner, "Professor Macewen will tell you, if you ask him, that in all matters of hospital and clinical arrangements, present and prospective, Rome, Genoa, and Turin are ahead of us in Glasgow." Leaving this point, Professor Gairdner said that he could not refrain from insisting on the contrast between his first and his last visit to Italy in respect of the condition then and now of the science and art of medicine. In 1845–46 a young man fresh from the school of Edinburgh found Italian medicine and surgery whole decades behind the rest of Europe. In the very country of Morgagni, the originator of scientific pathology, there was at that time no pathology worthy of the name; nothing but endless speculations and absolutely inane controversies as to diseases which were, or were supposed to be, hypersthenic, and diseases which were hyposthenic—a wave of controversy which really originated in the shallow, if specious, imposture of Brunonianism, which had its birthplace, indeed, in Edinburgh in the latter part of the last century, but which very soon fizzled out in the land of its birth. Professor Gairdner said that in his earlier years in Edinburgh it became part of his duty to read the Italian medical journals which were exchanged with the Edinburgh journal, but that up to and even after the time when Virchow had commenced his splendid career of pathological discovery, so full of the reality of progress, because it was so firmly based upon nature and fact, the medical journals of Milan, Turin, and Bologna (which were then considered the most advanced in Italy) were full of these inanities and hardly ever afforded anything worthy of reproduction in the English language. It was difficult to understand how the country which in 1761 had given birth to the great work of Morgagni could have sunk into such a state of medical decadence as that of Italy in the "fifties." The magnificently enthusiastic reception accorded to Rudolf Virchow in 1894 by the whole Italian nation, and the graceful and appreciative *éloge* pronounced by the great German pathologist on John Baptist Morgagni as the first and greatest of his predecessors in well-ordered pathological research, might be taken as marking in a very striking and almost dramatic way the rejuvenescence of Italy in medical science. That Virchow was the legitimate successor of Morgagni in the present day no one could doubt; it might even be doubted whether in any country of the world there was any intervening name which could be placed in the same rank as these two. Yet the marvellous fact was that, in and about 1850, Italy seemed to have lost touch altogether with the lines of progress initiated by her own greatest pathologist, and the art of healing had sunk into a corresponding position of obscurantism. These things were a lesson for us also, if we should ever be tempted to suppose that by casting away or neglecting the foundations of the medical art we could ever hope to improve it in its more practical as contradistinguished from its scientific aspects. It was the death of Cavour that sounded the tocsin of this decadence and aroused the whole medical profession of Italy to the voice of all Europe, proclaiming, rightly or wrongly, that that great statesman had been slain outright by the bloodlettings performed upon him repeatedly according to an exploded system of practice, worthy of a barbarous age.[1] At all events, the new medicine might be said to have had its birth in Italy with the times of her political regeneration. What influence the latter had upon the former Professor Gairdner did not stop to inquire; but he said it should not be forgotten that even a distracted and divided Italy had produced in the last century such splendid specimens of medical genius as Redi and Spallanzani, to say nothing of such physicians as Volta and Galvani, and that in the preceding centuries she had not only adopted Vesalius, the greatest of anatomists since Galen, but had shown forth a perfect galaxy of medical names of the highest eminence, extending down to Malpighi in the seventeenth century and Morgagni in the eighteenth, names which placed her easily in the forefront of all the nations of Europe up to those dates. We could only hope for her that she would go on prospering and to prosper, and thus recover in the twentieth century all her former lustre."

May 2nd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Memorial Tablet to the late Dr. R. C. Mayne.

A MEMORIAL TABLET has lately been erected in St. Patrick's Cathedral, Dublin, to the memory of the late eminent physician, Robert Crawford Mayne, and his wife. It is composed of white Carrara marble, with green marble columns, and bears an inscription testifying to the esteem in which the deceased was held. Immediately over the inscription is placed the family crest, with a monogram on each side.

Fetherston-Haugh Convalescent Home.

This building, which occupies a position overlooking the

[1] It may be interesting to refer our readers to a leading article on this subject published in THE LANCET, June 15th, 1861, p. 593.—ED. L.

river Dodder, and is situated between Rathfarnham and Rathgar, is now completed. It is designed to accommodate twelve male and an equal number of female convalescent patients, besides affording accommodation for matron, nurses, and staff. The home is in connexion with the Adelaide Hospital.

Richmond Lunatic Asylum.

The report of the medical superintendent for the past year shows that on the last day of 1893 there was a total of inmates in the asylum amounting to 1498. The nominal limits of accommodation were exceeded at the end of the year by 398. The record exhibits the same steady increase which has been so marked for several years past. Two hundred and seventy-nine cases were discharged during the year; of these 163 had recovered, 97 were relieved, and 19 were not improved. Among the relieved was one patient who was discharged after having been found sane by a jury on a commission *de lunatico inquirendo*.

Insanity in Ireland.

A special report prepared by the inspectors of lunatic Asylums in Ireland, Drs. O'Farrell and Courtenay, on the alleged increasing prevalence of insanity in Ireland has been issued as a Parliamentary paper. The report states that there is not any conclusive proof that there is a general increase of insanity in the country. There is a great increase of the insane under care, but this is supposed to be an increase due mainly to accumulation. Some increase of insanity is apparent in particular districts. This is traced to hereditary influence, consanguineous marriages, innutritious dietary of the poorer population, which tends to produce anæmia and constitutional weakness which favour the development of scrofulous and neurotic disease, the immoderate use of certain nervous stimulants, and the mental strain and anxiety caused by "acute agricultural depression." The inspectors of lunatic asylums state that there is not any conclusive proof that there is a general increase of insanity in the country; but they had a different opinion last year, for if we turn to the Report of Lunatic Asylums for 1892, we learn that they state—after excluding certain causes which would account for a very large relative increase of insanity—"we must adhere to our opinion that they are not sufficient to explain the great increase of lunacy which has taken place of late years in this country. This opinion is strengthened by the table relating to admissions to district asylums, showing as it does an almost uninterrupted yearly increase of the number of first admissions in the face of a declining population."

Health of Dublin: Quarterly Report.

During the March quarter the births registered in the Dublin registration district amounted to 2542, and the deaths 2749; the births were equal to 29·1, and the deaths to 31·5 per 1000. Zymotic diseases caused 382 deaths, being 127 over the number for the first quarter of last year. Nearly one-fourth of the mortality from zymotic diseases was caused by whooping-cough; the deaths from influenza were almost as numerous, amounting to 87. Measles caused 33 deaths, scarlet fever 17, enteric fever 32, typhus fever 6, and erysipelas 10.

St. Mark's Ophthalmic Hospital.

A jubilee concert was held on April 30th in aid of this hospital to clear off a debt of £400. The institution was founded by the well-known Sir William Wilde in 1844. It was first located in Mark-street, and contained twelve beds for patients, but was afterwards transferred to its present position in Lincoln-place. During the past fifty years the total number of in-door patients was 18,750, of out-door patients 121,713, while the total number of operations performed was 18,484.

City of Dublin Hospital.

The Zosmic Fête, which was held last year at Ball's Bridge in aid of this hospital, has resulted in the handsome sum of £12 005 14*s.* 5*d.* having been obtained for a deserving institution.

Death of Dr Allen Edmond Douglas.

Another well-known Ulster practitioner, Dr. Douglas, passed away at his residence, Coolbawn, Warrenpoint, on April 25th, after a fortnight's illness. Dr. Douglas, who was a son of Captain Douglas, R.M., studied in Dublin, where he was Demonstrator of Anatomy at Steevens' Hospital School of Medicine, and became a Licentiate in 1856 and a Fellow in 1874 of the Royal College of Surgeons in Ireland. He also graduated M.D. at St. Andrews in 1858. After practising in various places Dr. Douglas settled down in Warrenpoint, where he rapidly acquired the leading practice and won the confidence and respect of a large circle of friends. He was dispensary medical officer for Warrenpoint, and for several years was chairman of the town commissioners of that place; he was also a justice of the peace for county Down and was an active and leading member of the Freemasons' craft. Dr. Douglas, who was fifty-nine years of age, leaves a widow and two daughters, for whom there is the deepest sympathy. Kind and considerate and attentive to his duties, Dr. Douglas was greatly respected by the whole community of Warrenpoint.

Queen's College, Belfast.

On Tuesday, May 1st, Dr. W. Russell, who has been appointed Lecturer on Pathology in place of Dr. Barrett (resigned through ill-health), delivered an introductory address on the Victories and Aims of Pathology. The President introduced Dr. Russell and there was a good audience. The new chemical and materia medica laboratories are now open to students.

May 1st.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Glycerophosphates and their Therapeutical Uses.

DR. ALBERT ROBIN, *professeur-agrégé* of the Paris Faculty, can lay claim to the distinction of having created as much sensation last week by the announcement of his discovery of the glycerophosphatic treatment as the late Dr. Brown-Séquard did with his orchitic extract. Inspired by the fact that many neurasthenics void in their urine comparatively large quantities of incompletely oxidised phosphorus, the source of which is probably the lecithin of the nerve tissues, the idea occurred to him that this nerve waste could be best met by supplying the system with phosphorus in organic combination most nearly approaching to that under which it exists as lecithin in the nerve centres. Since 1888 Dr. Robin has experimented with the glycerophosphates of calcium, sodium, and potassium, either isolated or associated, and both subcutaneously and through the stomach. He asserts that their influence on nutrition is indisputable. Thus, the hypodermic injection of twenty-five centigrammes of glycerophosphate of lime increases the total residue of the urine, the only ingredients remaining unaffected being the uric and phosphoric acids, the latter body appearing to undergo diminution. The glycerophosphates seem to act antagonistically to antipyrin, which is the remedy for heightened nervous excitability. Their action when swallowed is less marked than when they are introduced into the system through the lymphatics. Dr. Robin claims to have had successes in the following conditions: convalescence from influenza, and certain infectious diseases; nervous depression; neurasthenic phosphaturia; torpid form of chlorosis characterised by diminished oxidation of proteids; phosphaturic albuminuria; and simple phosphaturia. He further cites the case of a young man of twenty-three years affected with Addison's disease, and very thin and weak. Twenty-five centigrammes of glycerophosphate of lime injected subcutaneously daily, from the 5th to the 25th of January, brought up his weight from fifty-six to fifty-nine kilogrammes, and restored his strength in a remarkable degree. He resumed his work on Feb. 9th, and the improvement had continued up to April 5th, although the pigmentation persisted. Dr. Robin opines that the really active agent in testicular juice is phosphorus in organic combination, and that its frequent failure in this form may be explained by the instability of the gland extract. This instability is avoided when the artificial product is employed. Tried on ataxics, the glycerophosphates were found to increase the body weight, the average gain being fifty-one grammes a day; the skin became moister and the extremities warmer, and locomotion became less hesitating; above all, the lightning pains were markedly diminished; the incoördination was not influenced; and the quantity of urine passed was increased. During the first few days of the treatment the patients complained of formication of the legs and a sense of uneasiness, and they were impelled to keep on alternately flexing and extending their limbs. These uncomfortable effects soon disappeared, however. Amongst other cases treated there was that of a man aged forty-seven, crippled with

sciatica, which had been rebellious to the methyl chloride spray. From March 1st to 7th he received daily a subcutaneous injection of fifteen centigrammes of glycerophosphates in the neighbourhood of the affected nerve. On March 16th he was discharged cured. Two similar cases of sciatica were cured in nine and twelve days respectively. A woman sixty years of age, who had from ten to twelve attacks of tic douloureux (the disease had lasted seven years), was given twenty centigrammes daily in hypodermic injections at one of the painful spots in the face. This treatment was continued for four days, then she was left without treatment for ten days, and finally the hypodermic injections were resumed for four days. The attacks ceased completely for twelve days. On the twelfth day the extraction of two carious teeth brought back the tic, which was as violent as it was before the treatment. Four daily hypodermic injections determined the disappearance of the seizures. A failure is chronicled in a case of paralysis of the extensors of the hand consecutive to poisoning by carbon monoxide. The injections, practised with antiseptic precautions, cause no local trouble further than a slight burning sensation and more or less persistent redness of the skin. In two cases of locomotor ataxy no results were obtained, and in another the hypodermic injections provoked a condition of cerebral excitability with insomnia and hallucinations.

In conclusion, the glycerophosphates may be regarded as preferable to testicular juice, which acts probably solely in virtue of the organically combined phosphorus contained in it. The glycerophosphates possess a definite composition and are unchangeable, whereas the animal substance is uncertain. The chief indication for their therapeutic use is nervous depression.

May 1st.

MEMORIAL TO THE LATE SIR ANDREW CLARK.

IT is not often that physicians are so fortunate in their popularity and in their patients as the late Sir Andrew Clark. His funeral was a rare historical event in its numbers, in the presence of distinguished men, and in the service at Westminster Abbey. We now record below the particulars of a great public meeting designed to promote some memorial to one who played such a conspicuous part in his profession, and who was, besides, full of public spirit. The meeting was an uncommon one in the number, the eminence, and the authority of the speakers, as well as in the number of those present. We defer till next week our remarks on it, and on the principal speeches delivered; but we may now safely say that there has not often been such a meeting to commemorate the name and fame of members of our profession. It behoves those who were present and all interested in the memory of Sir Andrew Clark to follow the meeting up with a substantial proof of their sentiments. Opinions may differ as to whether the particular object favoured by the meeting should be the exclusive one. None can deny that Sir Andrew Clark himself was deeply identified with and interested in the London Hospital, and that to associate his name with any effort to make it more safe or more perfect as a refuge for the teeming population around it would be a use of his name which he would have greatly appreciated. It is fortunate when the form taken for a memorial, as well as the person to be commemorated, so commends itself to the public mind. This commendation was very evident from the numbers who attended the meeting held on Thursday, May 3rd, in Princes' Hall, Piccadilly, over which H.R.H. the Duke of Cambridge so kindly presided. Evidences of interest and enthusiasm were everywhere apparent among the audience, in the front row of which Mrs. Gladstone was an appreciative listener.

The CHAIRMAN said: Ladies and Gentlemen,—It is necessary for me, in opening the meeting, to explain how it happens that so unworthy a person as myself should take the chair. The fact is that, being President of the London Hospital, I felt I could hardly do otherwise than obtrude myself upon even such a large assembly as this, on an occasion like the present. We had a meeting some time ago in the early part of the winter, a preliminary meeting, to discuss thoroughly the question we have to deal with to-day, and it was then resolved that a small committee should be formed in order to carry out the details. Those details have now been brought to a point at which those who surround me will have the opportunity of putting forward the object with which the meeting is assembled and the result we hope to derive from it. In doing so I am bound to tell you that we are very aggressive in one respect, because we require a considerable amount of means to carry out the object in view. That object is in every respect, both in itself and in the intention with which this gathering is assembled to do honour to the great and able medical man, Sir Andrew Clark. (Cheers.) The object is such that I hope this meeting, supported as it is by the right hon. gentleman on my left (loud cheers), will result in the possibility of carrying out that which we wish to bring before your notice. I do not wish to detain you. I am glad to see such a large assembly here to-day, and I will now call on the right hon. gentleman, Mr. Gladstone. (Loud applause.)

The Right Hon. W. E. GLADSTONE, M.P., who was loudly cheered, asked permission to speak from his seat, which was granted by the chairman with the heartily expressed concurrence of the meeting. He said:—May it please your Royal Highness, I will make no apology, after the words that have fallen from your Royal Highness, for availing myself of the permission which has kindly been granted to me, to say, without rising from my seat, the few words that it may become me to say upon the present occasion. I am very glad, Sir, not for the first time, nor the second, nor, perhaps, the tenth or twentieth time, to find myself for a great public object under your Royal Highness's auspices, and I will say with great confidence that I do not believe you have given the advantage of your countenance and high position to a worthier cause than the cause that has brought us here to-day. For my own part, Sir, it has been with some small effort that I have come here to bear my humble part in the proceedings of the day. To have been absent from them, to have missed the opportunity of bearing testimony to the noble life of Sir Andrew Clark, would have been to me a standing cause of grief and mortification. Sir, I have the honour to address an audience which is composed, I have no doubt, in no inconsiderable degree, of Sir Andrew Clark's brethren in the noble profession to which he belonged, and in truth, although Sir Andrew Clark himself was a person whose name in itself constitutes an ample warrant and apology for a large gathering such as I see before me, yet I feel also that this is an occasion which associates itself with the profession at large. Undoubtedly, it was to me a matter of most lively satisfaction when I observed, as the whole world must have observed, on the death of Sir Andrew Clark, the tone of affectionate interest which ran through the whole of that great profession, as judged from the references in the medical press, the sense of a heavy loss sustained, and the desire to render some worthy and adequate testimony to such a memory as that of Sir Andrew Clark. (Cheers.) The profession itself is one with regard to which it is impossible, I think, not to be conscious that, great as has been its position in our generation and some generations previous, it is a position continually advancing and continually rising. In truth, your Royal Highness, if we go back some distance, we find that the other learned professions, as they are sometimes called, undoubtedly had a start of the medical profession. I think as much as four or five hundred years ago, in the first beginning of the commerce of this country, the lawyers in scores and hundreds sprang up, I might almost say, like mushrooms from the ground to dispose of the disputes which necessarily arise wherever property has been brought into existence. At that time medical men had hardly been heard of. But the position of the medical profession to-day is becoming one of vital and commanding interest to the whole of society, and I anticipate that that interest must continue. While wealth increases, while inventions and discoveries increase, wants will increase and enjoyments will increase; and, in connexion with those wants and enjoyments there will, I fear, your Royal Highness, be a corresponding increase of infirmity and disease, and the medical profession braces itself to grapple with the situation which has been created, and continually advances in knowledge

and in competence. My own life has been long enough to enable me to witness, and, in some degree, to measure, the change that has taken place. I have had the honour of knowing many eminent and distinguished men in the profession during the last three-score years, and I have seen also great change in capacity, in attainment, and in competency to deal with the difficult, the almost insoluble, problems that are continually presenting themselves to the mind of the medical man. Well, Sir, it appears to me that it was eminently desirable that, in a time like this, a man like Sir Andrew Clark should rise to the head of the profession—for, after all, we require something more than knowledge, something more than skill, we require great devotion to the cause of the profession; and that devotion was never, I think, exemplified in a more remarkable manner than in the career of Sir Andrew Clark. When he had been spending his well-earned vacation at a residence he temporarily occupied in Scotland, and when the few weeks he had allowed himself for retirement were nearly exhausted, a friend came, and, supposing he was paying him a compliment, said, "I condole with you, Sir Andrew Clark, on the close of your vacation." Sir Andrew turned and said, "Sir, I love my profession." He *did* love the profession. His whole heart and soul were in the profession. He loved it not only with sincerity and cordiality, but with a chivalrous devotion. We need not say the age of chivalry is altogether past, so long as we have among us—and I trust we may still have amongst us—men of the type of Sir Andrew Clark. There was no part of him, no faculty, no portion of his time, that he did not devote with his whole soul and the whole strength of his nature to the great work which was before him—not merely in the attainment of knowledge, but in the application of that knowledge to the diminution of human suffering. Thus I think the profession, if I may presume to say so, has done well in determining that Sir Andrew Clark may in the present age be taken by common consent as a typical man, representative of all that is best and noblest in the profession and in its purpose. In every profession there is required something more—I would almost, perhaps, say something more important—than knowledge and capacity, and that is character. The position of medical men is one which brings them more and more within the intimacy of the family circle. It brings them more and more into the confidence of those for whose benefit they are consulted, and in order that they may be worthy of that confidence, and may turn it to account, it is not requisite merely that they shall have studied with fidelity and even ardour the difficult subjects to which they devote their minds, but it is that all the qualities that go to give force to character should be exhibited by them in conjunction with their professional skill. On a day like this I hope that our proceedings will be read extensively throughout the country, and especially I am quite certain that they will be everywhere read by members of the medical profession. Of them some are advanced in life; but many also are very young, and I rejoice to think what an honour, benefit, and privilege it is to the young members of the profession to be called upon to contemplate a career and character like that of Sir Andrew Clark. He has given us the advantage, in the book which has recently been published, of a most interesting sketch of that career, and he has shown us how, in the case of Sir Andrew Clark, the boy was father to the man. He tells in his very early days—in his mere youth—in the town of Dundee, in the very first—the initial—stages of his profession, how he acquired at that time a deep love of his profession. Secondly, we see that profound sense of religion which attended him through his whole life, which supplied him with its guiding principle, and which produced in him this singular result—that when his mind had been occupied and absorbed in the arduous questions continually brought before him in the course of his practice it was his delight—and all those who knew him well, I am quite sure, will sustain me in what I say—it was his delight and his practice to find a recreation, not in trifles and frivolities, but in betaking himself naturally to the consideration of divine things. It would be great impertinence and presumption on my part if in moving this resolution I were not to observe what were the portions of it upon which I am in any degree competent to speak. Let me read the resolution:—

> "That, in recognition of the great services rendered to the community by the late Sir Andrew Clark, Baronet, M.D., a Memorial be established which shall perpetuate his name and his work."

It is not for me, Sir, to give opinions upon the medical eminence and skill of men like Sir Andrew Clark; but I may record my sense of the benefits that I have derived from them. I may say that I have come here to fulfil an office and to pay a tribute not only of duty and respect, but of gratitude and personal affection. Of course, I am not competent to judge of the medical skill of Sir Andrew Clark. What I have seen is his patience, his thoroughness, his experience, his absorption in the case of his patient, as if that one case was the single subject with which he had to occupy his mind, and I must add in my own instance that I have also had to look at the warmth of his friendship, the assiduous prosecution of the task he had set himself, which I know not how adequately to describe; but I may say this, that although he was a much younger man than I am myself, yet he followed me from month to month and from week to week, and never more than in the last year of his existence, with something that resembled a paternal affection. It is good for us to look back upon a life of this kind and in my own case, recollections which I cherish and ever shall cherish during the residue of my life, reach over a period of nearly thirty years. It was the lot of my wife to be among the first to recognise what was in Sir Andrew Clark, for she had at that period become personally acquainted with the case of the London Hospital; and when she came back from it—from one of her first visits there—after describing what she had seen and the persons with whom she had become acquainted she at that early date described among them him whom she called "that great Andrew Clark." Her words have been verified by a long course of subsequent experience, and I trust that the results of this meeting will show that Sir Andrew Clark is not forgotten, and that there is a desire on the part of the profession, on the part of that large number of persons who profited by his skill and care, and on the part of many members of the community at large—that there is a desire that such a name shall be commemorated amongst them. Sure I am, your Royal Highness, that whatever happens—whatever may have been the past advances in the medical profession—and they are great—whatever may be the future advances of that profession—and in all likelihood they will be greater still—there never will come a time when that profession will not be justly satisfied and glad to have recorded upon its annals a name such as the name of Sir Andrew Clark.

Cardinal VAUGHAN, who supported the resolution, said that it would ill become him, while the audience were under the impression of the speech produced by that able and venerable statesman who had just come forth from his retirement moved by a sentiment of personal admiration and gratitude to Sir Andrew Clark, to add many words to what he had just said. There was no doubt, and he thought all would agree, that the sight which had just been contemplated was most touching, and one which would move all the very best feelings in the hearts of all men, and would obtain from everyone a generous response and receive from the community at large the warmest approbation. For his part he would put before them one single thought: It was the praise that all men would value which he received—viz., the gratitude and approbation of religious men and women. Sir Andrew Clark was not only a great physician—he was a great man. He was a deeply religious man, who acted fully up to the lights which he possessed, and he had with all men who laboured in the cause of humanity, and especially in the case of the poor, a very real and tender sympathy. Cardinal Vaughan desired to add his testimony to the very simple and practical manner in which this characteristic of Sir Andrew Clark manifested itself, especially in the case of those of his own creed, to which Sir Andrew Clark, however, did not belong. He testified to the great obligations of the multitude of poor priests, nuns, and poor sisters to whom the great physician had rendered lasting services, and he quoted instances of his charitable and benevolent disposition to those who laboured for the poor of all denominations. He remembered Sir Andrew Clark saying to him, "When it is a question of saving the health of those who are labouring for the poor there is no fee to be charged." On the occasion of his attendance on his venerable predecessor, he (Cardinal Vaughan) met him at the door and said, "Now on one condition, there is no talk of fees." Two days before his death two sisters visited Sir Andrew Clark for advice. Upon their taking leave of him they meekly said: "And what is the fee that we shall pay you?" "No fee," was the answer; "it is an honour and a pleasure to attend those who are like you." He was a religious man, therefore, and not only a great physician, and the memorial

claimed to have the coöperation and sympathy of all persons whether engaged in medical science or other avocations.

Mr. HUTCHINSON, in supporting the resolution, said the reason for his doing so was that it had been thought that someone representative of the medical profession, and who was also a colleague of Sir Andrew Clark, should address them. The movement in honour of the deceased physician had the full sympathy of the whole of the medical profession—that sympathy being greatest among those who knew him best. They did not claim for him the discoveries of a Harvey, a Jenner, or a Hunter, but nevertheless held that he was in the highest and best sense of the word a representative man, to whom it was the duty and the privilege and the interest of the whole community to do honour. In eloquent terms Mr. Gladstone had said that the profession would always be proud of the record of such names as that of Sir Andrew Clark, and the words would find an echo from all who belonged to the profession. "One good deed," said Shakespeare, "dying tongueless, slaughters a thousand." He took that to mean that an injury was inflicted on future ages if a single good deed were allowed to die without suitable commemoration, and in the life of Sir Andrew Clark they had a record which would be a treasure to generations yet to come. Sir Andrew stood between the profession of medicine and the public in an almost unique manner, interpreted to the public the laws of health and brought home the importance of those laws to the intelligence and convictions of the community as had been done by few other men. (Applause.)

Canon WILBERFORCE moved:—

"That steps be taken to raise a sum sufficient for the erection of a block of buildings at the London Hospital, to bear the name of Sir Andrew Clark, which will afford increased facilities for the relief of suffering and the advancement of medical science."

In moving this resolution he alluded to the religious aspect of the work of Sir Andrew Clark. His religious light was a very brilliant one. He alluded to the speech of Sir Andrew Clark at the Exeter Hall as one of the most valuable utterances of the nineteenth century.

Sir JAMES PAGET followed, dealing with the scientific aspect of the proposed memorial.

The proceedings terminated with a vote of thanks to the chairman, H.R.H. the Duke of Cambridge.

Medical News.

ROYAL UNIVERSITY OF IRELAND.—The following have passed the Third Examination in Medicine of the University:—

Upper Pass Division.—Samuel T. Beggs and John A. Rougham. (These candidates may present themselves for the further examination for honours.)

Pass Division.—John Boyd, Alexander Burns, William S. Carroll, Robert A. Cunningham, Richard E. Devitt, Samuel F. Floyd, Francis T. Heron, William A. McWilliam, Joseph Matson, John C. Nixon, William B. Norcott, Daniel J. O'Connor, Walter S. Smyth, William M. H. Speller, William J. Still, Andrew Trimble, and Richard T. Young.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.—The following have passed the Third Professional Examination:—

J. A. Beaumont, T. Cairns, H. L. Dawson, R. Hassard, E. J. K. Hogan, R. D. Jephson, W. J. Keane, H. T. J. Kennedy, H. S. Laird, W. Lawler, James Lynch, M. P. Murphy, D. O'Brien, A. C. Seale, J. Sheridan, and J. Thomson.

PLYMOUTH MEDICAL SOCIETY.—To celebrate the formation of this society a dinner was held on the hundreth anniversary—viz., April 11th—at which forty members and guests were present. The toast list comprised the "Queen and Royal Family," proposed by the chairman, Mr. E. M. Russel Rendle, vice-president; "Success to this society," proposed by the hon. treasurer, Mr. J. Elliot Square, who gave a historical review of great interest, which was happily responded to by the chairman; and "Our Guests," proposed by Mr. J. H. S. May, who coupled with it the name of Admiral Sir George Watson, K.C.B., the latter briefly responding. Among those invited as guests of the society were Sir William B. Dalby and Professor John Struthers, representing the Medical Society of London and the Edinburgh Harveian Society respectively. The closing meeting of the session 1893–94 was held on Saturday, April 28th, in the library. Dr. Anstruther Rendle read a paper entitled "Some varieties of Headache and their treatment," which was fully discussed.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—The recent additions to the Medical School of St. Thomas's Hospital will be formally opened by the President, H.R.H. the Duke of Connaught, K.G., on Saturday, June 9th, at 4 P.M. The new buildings consist of a students' club, large and small pathological laboratories, a class-room for practical surgery with special arrangements for operative surgery, a private room for the teacher of biology, accommodation for dissection by the biological class, and various offices. The addition of these buildings completes the pathological department, which now consists of the museum, large and small pathological laboratories, a bacteriological laboratory, and the post-mortem department. Beyond this, the removal of the club and the pathological and biological classes from the old buildings has provided increased space for the enlargement of the library and reading-room, for the placing of the physical laboratory *en suite* with the chemical department, and the provision in the latter of a special laboratory for organic chemistry and the conduct of the classes for the higher chemical examinations. The additions allow of excellent and distinct accommodation being given to each department.

MANCHESTER SOUTHERN HOSPITAL FOR WOMEN AND CHILDREN.—A bazaar in aid of the above institution was held last week in the new buildings of the medical school of Owen's College. The hospital, which had its origin some twenty-five years since—due to the efforts of the late Dr. Thorburn and of Dr. H. F. Simpson—has become one of the most important of the medical institutions in Manchester. The work is now carried on in three different buildings—the principal hospital in Clifford-street, an out-patient department in the same street, and the maternity hospital in a block of houses in Upper Brook-street. These buildings are insufficient, and new ones are to be erected, in part at least, on a site near the college, the gift of the Whitworth Trustees. A scheme has been arranged for the amalgamation of St. Mary's Hospital with the Southern, and under certain conditions as to amalgamation the offer of £70,000 has been made by the trustees of the David Lewis Trust. It may be confidently anticipated that the combined hospitals will have a successful future. St. Mary's has, unhappily, secured a site for the Maternity Hospital most unsuitable for the purpose. It is close to the Oxford-road Station, nearly at the lowest point of the road, adjoining a noisy street on one of the principal routes to the dock and the Ship Canal; so that in addition to the traffic to th station there will be heavy goods traffic, and it will front to Oxford-street, which is never free from noise night or day. In winter this part of the district suffers more, perhaps, from dense fog than any other in the city. The site may be a very valuable one for business, but is as unsuitable as it well can be for lying-in women.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following are announced:—Dr. Friederich Birnbaum, Extraordinary Professor of Midwifery and Gynæcology in the University of Giessen, from erysipelas contracted from a patient.—Dr. A. Illich, *operateur* in Professor Schauta's Obstetric Clinic in Vienna, at the age of twenty-eight.—Dr. Wenzel Steffal, *docent* of Descriptive Anatomy in the Bohemian University of Prague.—Professor Friederich Neelsen, Prosector to the City Hospital, Dresden, from laryngeal phthisis, at the age of forty. While he was assistant to Professor Wagner of Leipsic he published researches on a peculiar form of degeneration of the minute vessels in the brain, on aortic aneurysm, and on the psychomotor centres in the cortex of the brain. He afterwards went to Rostock, where he worked with Professor Thierfelder and studied micro-organisms in milk, the minute passages of the cornea, septicæmia, elephantiasis, and the effect of inoculation of erysipelas on malignant tumours. After being appointed to the post of Pathologist to the Dresden Hospital he studied several urinary diseases in conjunction with Oberländer, and the pathology of gynæcological conditions with Schramm. He also assisted in the production of "Perls' Manual of the Technique of Pathological Anatomy," and was appointed Medical Councillor for Saxony.—Dr. Josef Agatz, who assisted in the production of the well-known Atlas of Surgery by Pitha and Billroth, at Augsburg, at the age of seventy-three.—Dr. Friedrich Wilhelm Weber, who, in addition to being a medical man, was a member of the Landtag and author of the poetical works "Dreizehnlinden" and "Goliath," at Nieheim, at the age of eighty.—Dr. Vedrènes, formerly Medical Inspector of the French Army.—Dr.

Lostalot-Bachoué, French Consul at Wellington.—Dr. G Brugnoli, Professor of Medical Pathology in the University of Bologna.—Dr. J. Fritschi, *privat-docent* in Forensic Medicine in the University of Freiburg (Baden).

MEDICAL MAGISTRATE.—Mr. William Ogle, M.D. Cantab., F.R.C.P. Lond., has been placed on the Commission of the Peace for the borough of Derby.

FOOTBALL CASUALTY.—On the 30th ult., during a match between the Stoke and Millwall Athletic teams, the captain of the latter team sustained a compound fracture of the left leg.

THE CASE OF ANSELL *v.* TAIT.—We understand that a few of Dr. Tait's professional neighbours and friends, deeply sympathising with him in the worry to which he has been subjected in connexion with the above case, now happily ended, and feeling that such sympathy is universal, intend to meet at the residence of Dr. Glover, 25, Highbury-place to-day, (Friday), at 8.30 P.M., to consider in what way they can give expression to that sympathy.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The Dogs Bill.

THIS is the title the Government have given to their measure for counteracting the spread of rabies. Briefly summarised, the Bill consolidates and amends the law relating to the seizure of stray dogs, the muzzling of dogs, the treatment of dangerous dogs, and the liability of the owner of a dog for injury done by it to cattle or sheep, and enables the Board of Agriculture and local authorities all over the country to require dogs to wear collars with the name and address of their owners. Under the general law, the police have no power to deal with stray dogs other than such as are supposed to be savage or dangerous. Under an Act passed a few years ago the Board of Agriculture have required all local authorities to seize and deal with tray dogs, but in experience it has been found difficult for local authorities to act effectively in places where they are not the police authority. What therefore the Bill proposes is that the statutory powers of the Metropolitan Police, which are now limited to the County of London, should be extended to the whole of the Metropolitan Police District and that similar powers should be conferred on all police authorities throughout the country. From 1886 to 1889 the Privy Council, and since 1889 the Board of Agriculture, have dealt with outbreaks of rabies by orders under the Contagious Diseases (Animals) Acts, either by directly requiring dogs to be muzzled in certain places or by enabling local authorities generally to impose the muzzle by regulation when necessary. Under Section 3 of the Dogs Act, 1871, certain local authorities can impose restrictions on dogs, but this can only be done where a rabid or suspected dog is within the district of the local authority, and the restrictions do not extend to a dog which is under the control of any person. These limitations render the power of little practical use. The Bill of the Government proposes to repeal the provisions of the Act of 1871 and of the Metropolitan Streets Act, 1867, relating to muzzling, and to repeal and re-enact Section 3 of the Board of Agriculture Act of 1889, so that in future muzzling will only be imposed by the authorities responsible for the prevention of the spreading of disease. The same clause of the Bill confers a new power on the Board of Agriculture and local authorities to require dogs to wear collars with the name and address of their owners, and removes a doubt as to whether the Board can require dogs to wear collars. It also removes a doubt as to the power to destroy unmuzzled dogs in Ireland. Clause 3 provides that if it is proved to the satisfaction of a court of summary jurisdiction that a dog is dangerous and not kept under proper control the court may make a summary order directing the owner to keep the animal under proper control, or directing the owner, or a police officer, or some other person, to destroy it. It also provides that a police officer may destroy any dog found on a highway or place of public resort which is affected with rabies, or which he has reasonable grounds for believing to be affected with rabies, or to have been bitten by any dog or other animal affected with the disease. Then there is a provision taken from various local Acts as to the punishment of persons who allow ferocious dogs or dogs affected with rabies to be at large. The clause as to the liability of owners for injury done to cattle and sheep dispenses with the necessity of proving the mischievous propensity of the dog, or a knowledge on the part of the owner of that propensity. The Bill is now in the House of Commons, under the charge of the President of the Board of Agriculture, who has every hope of seeing it passed through both Houses before the close of the session.

HOUSE OF COMMONS.

THURSDAY, APRIL 26TH.

The Employment of Women in Indian Mines.

In reply to a question by Sir John Gorst, Mr. Henry Fowler stated that when the inspector sent out to India to inquire into this question had completed his inquiry and presented his report legislation would be undertaken.

FRIDAY, APRIL 27TH.

The Labour Commission.

Sir J. Hibbert informed Mr. Benn that the expenditure of the Royal Commission on Labour up to March 31st was £45,358. It was estimated that a further sum of £1530 would be spent.

MONDAY, APRIL 30TH.

Factories and Workshops Bill.

Requesting permission to bring in a Bill to amend the law relating to factories and workshops, Mr. Asquith explained that the object of the measure was to reform the general law relating to the sanitary condition of workshops. An allowance of space per man of less than 250 cubic feet would be defined as overcrowding, and 400 cubic feet would be the limit after 8 P.M. The bill would also deal with dangerous operations performed by women and young persons and with overtime. Certain industries not included in the existing Act would be included in the present Bill. Amongst others laundries would be included. The Bill was read a first time.

TUESDAY, MAY 1ST.

Importation of Canadian Cattle.

Mr. Gardner said he proposed to commence the special examination of the lungs of Canadian cattle on May 16th.

Pleuro pneumonia.

The President of the Board of Agriculture also stated that an outbreak of pleuro-pneumonia had occurred at Minster, in Kent, but there was nothing to suggest that it was contracted from imported animals.

THURSDAY, MAY 3RD.

The Druggist and the new Alcohol Imposts.

Mr. Radcliffe Cooke asked the Chancellor of the Exchequer whether he was aware that the additional duty of 6d. per proof gallon on spirit pressed very unfairly on chemists and druggists, who cannot recover any part of the additional tax without infringing the Sale of Food and Drugs Act; and whether he was aware that it had been estimated that the tax would amount to an equivalent of an extra 2d. in the pound on the average chemist and druggist's income; and whether he would consider if means could be devised so that spirit used in medicine could be subject to a special and lower tax than spirits used as a beverage.—Sir William Harcourt replied that the distinction suggested by the hon. member in this question was not practicable. The hon. member would find the reasons for which it could not be done stated very fully by the late Chancellor of the Exchequer (Mr. Goschen) in the session of 1890, when an amendment to the effect of the question was moved.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANDREW, J. GRANT, M.B., C.M. Glasg., has been appointed Surgeon to the Infirmary Dispensary of Victoria Infirmary, Glasgow.

ATKINSON, J. A., L.R.C.P.Lond., M.R.C.S., has been reappointed Honorary Medical Officer to the Starbeck Hospital.

BEAMISH, BENJAMIN, L.K.Q.C.P. Irel., L.R.C.S., has been appointed Surgeon to the Newry Fever Hospital and Infirmary.

BROWN, R. C., M.B. Durh., B.S., has been appointed Medical Officer for the Wooldale Sanitary District of the Huddersfield Union.

BRYETT, W. R., B.A. Lond., M.R.C.S., L.R.C.P. Eng., has been appointed House Physician to King's College Hospital.

CLARKSON, H. G. H., L.R.C.P., L.M., L.R.C.S. Edin., has been reappointed Honorary Physician to the Starbeck Hospital.

CLAYTON, W. KITSON, M.D. Brux., L.R.C.P., L.M., L.R.C.S. Edin., has been appointed Medical Officer of Health for Wakefield.

COATS, JOSEPH, M.D. Glasg., F.F.P.S. Glasg., has been appointed Lecturer on Pathology, &c., Glasgow University and Western Infirmary, vice Moore.

COHEN, G. A., M.D., has been appointed Resident Medical Officer to the National Hospital for Diseases of the Heart and Paralysis, Soho-square, W.

COOMBE, RUSSELL, F.R.C.S. Eng., L.R.C.P. Edin., has been appointed Surgeon to the Exeter Dispensary, vice Brown.

DAVIDSON, H. M., L.R.C.P. Edin., M.R.C.S. Eng., has been appointed Medical Officer for the parish of Halkirk, Caithness-shire.

DICK, G. R., M.B., C.M. Glasg., has been appointed Medical Officer to the Loyal Sweet Home (Inverness District) of the National Independent Order of Oddfellows.

DYSON, J. R. H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Deanhouse Workhouse of the Huddersfield Union.

FIGGIS, S. B., M.B., C.M. Edin., has been appointed Resident Medical Officer of the York Dispensary, vice E. Goodby, resigned.

FISHER, F. D., M.B., C.M. Edin., has been appointed Junior House Surgeon to Ancoats Hospital, Manchester, vice Hogg, resigned.

GOODHALL, E., M.D. Lond., B.S., M.R.C.P., M.R.C.S., has been appointed Medical Superintendent of the Joint Counties' Lunatic Asylum, Carmarthen, vice Hearder.

GRANDY, WM. E., M.B. Dubl., L.R.C.S. Irel., has been appointed Medical Officer for the Third Sanitary District of the St. George-in-the-East parish.

GRANT, A., M.B., Ch.M. Aber., has been appointed Public Vaccinator for Oakleigh, Victoria, Australia, vice Morrison, resigned.

GROSS, C. F., L.S.A., has been appointed House Accoucheur to King's College Hospital.

HAMILTON, JAMES, M.B., C.M. Glasg., has been appointed Physician to the Infirmary Dispensary of Victoria Infirmary, Glasgow.

HARKNESS, EDWARD, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Public Vaccinator for Rosedale, Victoria, Australia, vice Park, resigned.

HARRIS, J. H., M.R.C.S., has been appointed Public Vaccinator for the Nos. 1 and 2 Sanitary Districts of the Kingsbridge Union.

HOLLIS, E., M.D., C.M.Edin., has been reappointed Medical Officer of Health for Woodbridge.

JONES, W. M., M.R.C.S., D.P.H Camb., has been reappointed Medical Officer of Health for the Swinton Urban Sanitary District.

LANGLANDS, F. H., M.B., Ch.B.Melb., F.R.C.S Eng., has been appointed Demonstrator of Anatomy at the University, Melbourne, Victoria, Australia.

LOCK, E. J., L.S.A Lond., has been appointed Public Vaccinator for Mirboo North, Victoria, Australia.

LONGTON, G. HAROLD, M.R.C.S., L.R.C.P.Eng., has been appointed Clinical Ophthalmic Assistant to King's College Hospital.

LOW, HAROLD, M.A., M.B.Cc. Cantab., has been appointed Anæsthetist to the West-end Hospital for Diseases of the Nervous System, Welbeck-street.

LUCAS, C. B., L.R.C.P., L.R.C.S Edin., L.F.P.S. Glasg., has been appointed Parochial Medical Officer for Dornock, vice Macbean, resigned.

LYLE, H. WILLOUGHBY, M.R.C.S., L.R.C.P.Eng., has been appointed House Surgeon to King's College Hospital.

MACKAY, FRED. W., M.B., C.M. Edin., has been appointed Resident Physician to the City Hospital, Edinburgh.

MASTER, G., L.R.C.P.Lond., M.R.C.S., has been appointed House Surgeon to the Suffolk General Hospital.

MITCHELL, A. B., M.B., B.Ch., B.A.O.Irel., has been appointed Honorary Surgeon to the Ulster Hospital for Children and Women.

MORTIMER, J. D., M.B., F.R.C.S., has been appointed Medical Officer to the Earlswood Hospital for Infectious Diseases, vice H. W. Ewen, resigned.

MORISON, ALEXANDER, M.D., F.R.C.P.Edin., M.R.C.P.Lond., has been appointed Physician to the St. Marylebone General Dispensary, Welbeck-street, W.

NICHOLLS, SYDNEY R., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the No. 1 Stratford Sanitary District of the West Ham Union.

ROBINSON, FRANK, M.B.Vict., Ch.B., has been appointed Resident Medical Officer of the City Hospital, Parkhill, Liverpool.

SEATON, D., M.B.Vict., has been appointed House Surgeon to the Leeds General Infirmary.

SMITH, F. M. G., L.R.C.P., L.M.Edin., [M.R.C.S., has been appointed Medical Officer for the No. 4 Sanitary District of the St. Albans Union.

STEWARD, E. S., M.R.C.S., L.R.C.P., has been appointed House Physician to the Leeds General Infirmary.

SWEETMAN, FRANK A., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Health Officer for the Minhamite Shire, Eastern District, Victoria, Australia.

TAYLOR, DAVID, M.B., Ch.M. Aberd., has been appointed Public Vaccinator for Omeo, Victoria, Australia.

THOMAS, J. GEORGE, M.B., M.S. Edin., has been appointed Medical Officer for the Penderyn Sanitary District of the Merthyr Tydfil Union.

TINDAL, ANDREW STEWART, M.D., C.M.Glasg., has been appointed Physician to the Tradeston Dispensary of Victoria Infirmary, Glasgow.

TODD, L. B., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Leeds General Infirmary.

TURNER, WM., M.R.C.S., L.R.C.P.Eng., L.S.A., has been appointed House Surgeon to King's College Hospital.

VACE, CYRIL, M.R.C.S., L.R.C.P., has been appointed Assistant House Physician to King's College Hospital.

WALKER, H. R., L.S.A., has been appointed House Surgeon to King's College Hospital.

WALKER, F., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to the Ida Hospital, Leeds.

WEBB, J. CURTIS, B.A.Cantab., M.R.C.S., L.R.C.P.Eng., has been appointed Assistant House Accoucheur to King's College Hospital.

WILLIAMS, WALTER C., has been appointed Public Analyst for the City of Liverpool.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BISHOP STORTFORD UNION.—Medical Officer and Public Vaccinator for the parish of Braughing. Salary £35, and £5 per cent. on that sum for supplying cod-liver oil and quinine, together with usual vaccination and extra fees for midwifery and surgical cases. Applications to the Clerk to the Guardians, Bishop Stortford.

BRITISH INSTITUTE OF PREVENTIVE MEDICINE.—Assistant in Bacteriological Department. Applications to the Honorary Secretary, 101, Great Russell-street, London, W.C.

CARDIFF UNION.—Assistant Medical Officer for the Workhouse. Salary £100 per annum, with rations, apartments, attendance, and washing. Applications to the Clerk, Queen's-chambers, Cardiff.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY, Chesterfield.—Resident Junior House Surgeon and Dispenser, for three years. Salary £50 a year, with board, apartments, and laundress.

CHURCH STRETTON UNION.—Medical Practitioner and Public Vaccinator for the Workhouse and Infirmary, situate near the town of Church Stretton. Salary £10. Half-a-guinea will be paid in each case of ordinary midwifery and half-a-crown for each successful primary vaccination. Applications to the Clerk, Union Offices, Church Stretton.

DERBY COUNTY ASYLUM, Mickleover.—Locum Tenens for two months and a half from about June 10th. Terms £2 2s. weekly, with board &c. and travelling expenses to asylum.

DURHAM COUNTY HOSPITAL.—House Surgeon. Salary £100 a year, and board and lodging. Applications to Hon. Sec., 16, South Bailey, Durham.

FARM SCHOOLS, Redhill.—Medical Officer. Salary £100 per annum, including medicine, &c.

FISHERTON ASYLUM.—Assistant Medical Officer, single. Salary £100 per annum, with board, lodging, and washing. Apply to Dr. Finch, Salisbury.

GENERAL HOSPITAL, Nottingham.—Assistant House Surgeon, for six months. Board, lodging, and washing in the hospital provided.

GENERAL INFIRMARY AT LEEDS.—Pathological Curator. Honorarium 20 guineas a year.

GORDON HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM, 276 and 278, Vauxhall-bridge-road, S.W. Two Honorary Surgeons.

HUDDERSFIELD INFIRMARY.—Senior House Surgeon and Junior House Surgeon. Salaries £80 and £50 per annum respectively, with board, lodging, and washing.

KENT COUNTY ASYLUM, Chartham, near Canterbury.—Junior Assistant Medical Officer, single. Salary £125 per annum, with furnished apartments, board and attendance. Applications to Mr. A. Fielding, Solicitor, Canterbury.

LONDON HOSPITAL, Whitechapel, E.—Medical Registrar. Salary £100 per annum.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Resident Medical Officer, at Bowdon, Cheshire. Salary £60 per annum, with board, apartments, and washing.

NOTTINGHAM BOROUGH ASYLUM.—Second Assistant Medical Officer, unmarried. Salary £100 a year, with board, apartments, and washing.

PARISH OF STOKE-UPON-TRENT.—Visiting Medical Officer of the Workhouse and Resident Medical Officer of the Workhouse. Salary of the Visiting Officer will be at the rate of 50 guineas per annum, and the salary of the Resident Officer will be at the rate of £120 per annum, with board, washing, and furnished apartments in the hospital. Applications to the Clerk, Poor-law Offices, Stoke-upon-Trent.

ST. LUKE'S HOSPITAL, London, E.C.—Two Clinical Assistants for six months. Board and residence provided.

THE HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, W.C.—Resident Medical Officer as House Physician for six months. Salary £20, with board and residence in the hospital.

THE HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, W.C.—Resident Medical Officer as House Surgeon, for six months. Salary £20, with board and residence in the hospital.

THE HOSPITAL FOR WOMEN (THE LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W.—Clinical Assistants.

WOOLWICH UNION.—Resident Assistant Medical Officer at the Infirmary at Plumstead, unmarried. Salary £90 per annum, with apartments, rations, and washing.

YORK DISPENSARY.—Resident Medical Officer, to visit and attend the sick poor at their own homes, unmarried. Salary £150 a year, with furnished apartments, coals, and gas. Applications to W. Draper, Esq., De Grey House, York.

Births, Marriages and Deaths.

BIRTHS.

ALDOUS.—On April 29th, at Compton Gifford, Plymouth, the wife of George Frederick Aldous, Surgeon, of a daughter.

GODDARD.—On May 1st, at Pentonville-road, N., the wife of Bertram Goddard, L.R.C.P. Lond., M.R.C.S., of a son.

GRIFFITHS.—On Jan. 16th, at Blayney, New South Wales, the wife of Ernest E. Griffiths, Government Medical Officer, of a daughter.

KIRTON.—On April 27th, at The Oriel House, Leigh, Essex, the wife of C. Stanley Kirton, M.R.C.S., L.R.C.P., of a daughter.

LEGGATT.—On April 30th, at Hoo, Kent, the wife of Gerard S. Leggatt, M.R.C.S., L.S.A., of a daughter.

PILKINGTON.—On April 27th, at Gower-street, W.C., the wife of F. W. Pilkington, M.D., Adlington, Lancashire, of a daughter.

MARRIAGES.

THIN—WRIGHT.—On April 26th, at 7, Claremont Park, Leith, by the Rev. Peter Wilson, M.A., Leith, assisted by the Rev. George F. James, Edinburgh, and the Rev. Alexander Scott, B.D., Musselburgh, Robert Thin, M.A., M.B., F.R.C.P. Edin., to May Glover, daughter of the late John Wright (of Messrs. Aitken and Wright, Leith). No cards. At home, 38, Albany-street, Edinburgh, June 4th, 5th, and 6th.

WATKINS—DOLEMAN.—On April 30th, at the Church of St. Matthew, Talbot-street, Nottingham, by the Rev. T. B. Ferris, M.A., Ernest R. Powell-Watkins, M.R.C.S. and L.R.C.P. Edin., of Nottingham, to Margaret Agnes ('Gretta'), second surviving daughter of Mr. John Doleman, of Musselburgh (Edin.) and Nottingham.

DEATHS.

LASERON.—On April 28th, at his residence, The Green, Tottenham, Michael M. A. H. Laseron, M.D., Director of the Tottenham Deaconesses' Institution, aged 74 years.

LUNAN.—On April 25th, at Blairgowrie, Perthshire, Robert Lunan, L.R.C.S.Edin., aged 81 years.

LUSH.—On April 28th, at Fydell, Eastbourne, William John Henry Lush, F.R.C.P., M.R.C.S., aged 43 years.

PARK.—On April 30th, at Milverton Lodge South, Leamington, Surgeon-Major Thomas Park, late Royal Artillery.

SMYTH.—On Feb. 16th, at Kuala, Lipis, Pahang, Norman Smyth, M.D., M.R.C.S., Medical Officer to the Pahang Government.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 3rd, 1894.

	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
April 27	29·64	S.W.	52	49	111	62	47	0·06	Cloudy
,, 28	29·85	S.E.	52	50	105	62	45	0·03	Hazy
,, 29	30·13	S.W.	53	49	96	67	45	0·05	Bright
,, 30	30·03	S.W.	54	53	64	58	41	0·06	Raining
May 1	30·29	N.E.	49	45	105	55	41	0·09	Cloudy
,, 2	30·24	W.	47	45	90	56	40	..	Overcast
,, 3	29·85	S.W.	53	51	107	58	47	0·03	Cloudy

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), Great Northern Central (2.30 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Great Ormond-street (9.30 A.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Chelsea (2 P.M.), Soho-sq. (2 P.M.), North West London (2 P.M.)

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY.—MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Walter Carr: On the Starting-points of Tubercular Disease in Children.—Mr. Percy Dean: On a case of Chronic Ulcer of the Duodenum; Perforation; Acute General Peritonitis; Abdominal Section; Excision of the Ulcer and Suture of the Duodenum; Recovery.

TUESDAY.—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—Mr. Thomas Bryant: A case of Extreme Prolapse of the Female Urethra in a Child aged Six, with remarks.—Mr. Edward Cotterell: Two cases of Uretero-lithotomy.

WEDNESDAY.—HUNTERIAN SOCIETY.—8 P.M. Adjourned Discussion on Diphtheria. Dr. Washbourn: Early Diagnosis of Diphtheria and Bacterial Cultivation.—Dr. George Turner: Relation to Diseases of Lower Animals.—Mr. Shadwell: Mode of Spread. Dr. Thorne Thorne, Dr. Edward Seaton, and other speakers. Dr. Hingston Fox: Mortality during Thirty-five years past illustrated by Diagrams. Drs. Pitt and Goodall to reply.

LARYNGOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—5 P.M. Dr. Dundas Grant: Lupus of the Nose and Larynx.—Mr. R. Lake: A case in which one Lobe of the Thyroid has been Removed for Graves' Disease.—Dr. Felix Semon: (1) Two cases of Malignant Disease of Larynx treated by Thyrotomy and Radical Removal of the New Growths; (2) A case of Lupus of Pharynx and Larynx; (3) Sequel to a case of Obscure Pharyngeal Ulceration shown at the February Meeting.—Dr. Scanes Spicer: A case of Fixation of Left Vocal Cord. Mr. W. R. H. Stewart: A case of Unilateral Laryngitis for Diagnosis. Dr. Watson Williams: An Intra-laryngeal Syringe for Submucous Injections.

THURSDAY.—NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY (New Board Room, Great Northern Central Hospital, Holloway-road, N.).—9 P.M. Dr. Harry Campbell: The Treatment of Chronic Heart Disease.—Dr. Morison: The Practical Bearing of the Aspirative Forces in the Circulation.

FRIDAY.—CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. J. R. Lunn and Dr. C. E. Beevor: A case of Syringomyelia.—Dr. Churton: A case of Pancreatic Cyst with Diabetes; Incision of Cyst; Death a year afterwards; Atrophy of Pancreas.—Dr. Vivian Poore: A case of Enteric Fever occurring in a Diabetic subject.—Dr. Lee Dickinson: Hæmoglobinuria from Muscular Exertion.—Mr. Martin Randell (introduced by Dr. Rose Bradford): A case of Pellosis Rheumatica.

LECTURES AND ADDRESSES.

MONDAY.—LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital, Moorfields, 1 P.M., Mr. R. Marcus Gunn: Clinical Examination of the Eye.—London Throat Hospital, Great Portland-street, W., 8 P.M., Mr. W. R. H. Stewart: Examination of the Ear.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

ST. JOHN'S HOSPITAL FOR SKIN DISEASES (Leicester-sq., W.C.).—6 P.M. Dr. Morgan Dockrell: Loss of Hair.

ROYAL METEOROLOGICAL SOCIETY AND THE SANITARY INSTITUTE (Parkes Museum, Margaret-street, W.).—8.30 P.M. Mr. C. Theodore Williams: Climate in relation to Health and Geographical Distribution of Disease.

TUESDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Percy Smith: Acute Delirious Mania; Hysterical Mania.

ROYAL INSTITUTION.—3 P.M. Prof. J. W. Judd: Rubies, their Nature, Origin, and Metamorphoses.

WEDNESDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton, 4 P.M., Dr. Sidney Martin: Modes of Infection in Tuberculosis.—Royal London Ophthalmic Hospital, Moorfields, 8 P.M., Mr. A. Q. Silcock: Choroidal Affections, with illustrative cases.—Hospital for Skin Diseases, Blackfriars, 1 P.M., Dr. Payne: Psoriasis.

METROPOLITAN HOSPITAL (Kingsland-rd., N.E.).—5 P.M. Dr. Drysdale: Phthisis Pulmonalis, a Contagious and Hereditary Disease. (Post-graduate Lecture.)

THURSDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Gt. Ormond-st., 3 30 P.M., Dr. O. Sturges: Clinical Lecture. National Hospital for Paralysed, Bloomsbury, 2 P.M., Dr. Ormerod: Paraplegia.—Central London Sick Asylum, Cleveland-street, W., 5.30 P.M., Mr. John Hopkins: Cases in the Wards.

ROYAL METEOROLOGICAL SOCIETY AND THE SANITARY INSTITUTE (Parkes Museum, Margaret-street, W.).—8.30 P.M. Mr. F. Gaster: Fog, Clouds and Sunshine.

ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The Solid and Liquid States of Matter.

FRIDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton, 4 P.M., Dr. Sidney Martin: Cases of Phthisis.

ROYAL INSTITUTION.—9 P.M. Rev. S. Baring-Gould: English Folk Song.

SATURDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 11 A.M., Dr. Hyslop: Acute Mania.

ROYAL INSTITUTION.—3 P.M. Captain Abney: Colour Vision. (Tyndall Lectures.)

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT IS most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET should be addressed "To the Publisher."

We cannot undertake to return MSS. not used.

PUBLISHER'S NOTICE.

IN order to facilitate the work of reference to the volumes of THE LANCET, we have arranged to publish duplicate copies of the Index to each half-yearly volume in a form in which they may be subsequently filed or bound together. Those of our subscribers who may wish to be supplied with loose copies can obtain the same (without extra charge) on making application to the Publisher of THE LANCET.

"THE DIFFERENCE BETWEEN DOCTORS AND SURGEONS."

THIS is a fine distinction, and one which must become altogether impalpable as time goes on. In the present state of the law it is impossible for a practitioner to be registered except with a degree or diploma implying an examination in all branches of medical work. In these circumstances it is quite superfluous, as it is ungracious, for correspondents of newspapers to write suggesting to those who are attended by men with one qualification that they may neglect the payment of their medical bills in cases not covered by the one-barreled qualification.

Enquirer.—Under the circumstances we do not think that these are times in which to advise one who is doing well to leave a position to go in search of vague courses or Government appointments.

MEDICAL EVIDENCE AT CORONERS' INQUESTS.

To the Editors of THE LANCET.

SIRS,—I beg to call your attention to the following matter. A few weeks ago a woman rushed into my surgery with a dying child in her arms. The child breathed but once, and then died. I made the usual examination to make sure that death had really taken place, and informed the mother of the fact, and that I should report the case to the coroner. The woman then left, naturally overwhelmed with grief. I immediately wrote to the coroner (this was on Thursday evening). On Sunday morning, as I had heard no more of the matter, I called at

the woman's house. The mother then informed me that an inquest had been held on the previous day (Saturday), and that another practitioner had given evidence in the case. It seems that in the excess of her grief she had gone, after she left my surgery, to this other medical man, hoping that he might say her child was not dead. She told this gentleman that she had been to me, and that I had pronounced the child dead and should report the case to the coroner. I called upon this gentleman immediately, to hear what he had to say in the matter. He stated that he "thought" the child was alive when brought to him. I also wrote to the coroner the same evening, but received no reply. Some weeks afterwards, when at an inquest, I mentioned the matter to the coroner; but he denied any recollection of it, and referred me to his officer, who brushed the matter aside by stating that the other medical man had said the child had died in his surgery. Now, I know as a matter of fact, from the mother's own statement, that she informed the officer that she took the child to me in the first instance, and that I had said I would report the case, notwithstanding which I was completely ignored, and the other practitioner summoned to give evidence. Now, seeing that I was the last medical man to see the child alive and the first to declare the child dead, and that I expressed my intention to report the case to the coroner, I consider that the coroner's officer ought to have called upon me in the first instance, and I hold that in omitting to do so he failed in his duty. I should be thankful if you would give me your opinion of the facts as I have stated them, and advise me as to how I should act in the matter.—Yours truly,

May 2nd, 1894. INQUIRER.

"THE PERILS OF FOOTBALL."

THE following letter has been forwarded to us by a correspondent to whom it was addressed and stands "as a melancholy confession of what the game can be made, reluctantly forced from an enthusiast" (our correspondent's own phrase).

[*Copy.*]

"DEAR SIR,—I have been so busy looking after others who were hurt in last Saturday's match that I have not had time to inquire after —— yet. I presume you refer to him in your last letter, but from what I have heard it seems likely to turn out a very serious job for him. He is but a working man and has only recently obtained work after being out for some three months. He has also had the added misfortune to lose his wife and child, and in all probability some of us will have to assist him to tide over his troubles.

"I regret to have to inform you that the whole of my team are greatly disappointed at the treatment they received at the hands of your eleven. No less than seven were so badly treated on the field that were there any more games to play this year they would not be able to put in an appearance.

"Not only is this the case, but those few who are not hurt seriously complain of the attempts which they believe to have been made deliberately to injure them. To my own personal knowledge four of the team are at present undergoing medical treatment, and two, as you are aware, received it on the ground. I should not be surprised to find that there are others in the same condition. It is most improbable—nay, almost impossible—that all these injuries could have been inflicted unintentionally; and I feel bound to make a protest against the cowardly tactics used to win this game. I am sorry to have to inform you that this must be the last match between the two clubs, for it would be positively unsafe for your men to put in an appearance on our ground until the remembrance of the 1894 match has died out. Yours, &c., ——."

R. C. should address his questions to the Secretary of the Society of Apothecaries.

"DIRTY RAILWAY CARRIAGES."

To the Editors of THE LANCET.

SIRS,—Some of the first-class season ticket holders of the London, Brighton, and South Coast Railway living at Sydenham propose, with your permission, to follow up the remarks that appear in THE LANCET, April 28th, 1894, p. 1081, by placing before you what they have to put up with daily between Sydenham and London Bridge, although they have protested to the secretary in writing, sending him the numbers. The carriages stink so badly that the windows cannot be closed, even on cold or wet days. The dirt on the cloth coverings is so thick that it comes off on to the cloth coats. In some instances the water runs through the carriage on wet days and wets the linings, causing dampness and rottenness afterwards. There is no time to select a clean carriage; we have to take what we can get when the train stops of a morning at or near 8.28. I am, Sirs, yours truly,

Lime-street, E.C., May 2nd, 1894. THOS. CHRISTY.

PROVIDENT SURGICAL APPLIANCE SOCIETY.

THE Earl of Lathom presided over the dinner of this society which was held at the Hôtel Métropole on Monday, April 23rd. In proposing the health of the society the chairman said the charity was entirely dependent upon the generosity of the public from year to year as there was no funded property to fall back upon when a low water mark was reached. During the past twenty-two years of its work the society had enabled 82,000 afflicted persons to do work which otherwise they would not have been able to do. Donations amounting to about £800 were announced during the evening.

DISADVANTAGES OF MEDICAL MEN.

G. B. G.—The fee allowed for attendance at the police-court varies from half a guinea to a guinea. In the metropolitan police-courts it is half a guinea. Our correspondent is entitled to a guinea for each day's attendance at the assizes, and second-class travelling expenses are allowed; the only other extra consideration being two shillings for each night he may be away from home. Nothing can be claimed for hotel expenses. Should our correspondent be compelled to stay at the assize town over Sunday, he cannot get remuneration for loss of time or incidental expenses. This is clearly an injustice. He cannot, moreover, insist on a fee for time lost in going to the assizes, but it is usual to grant such fee when an extra day is necessarily taken up by the journey. The last question is somewhat difficult to answer; but, in the absence of any special agreement with his employer, we consider that an equitable arrangement would be that the employer should receive all fees in full earned by our correspondent whilst he was actually in his employer's service, and that our correspondent should receive in full all fees earned by himself after the termination of such service.

"MEDICAL PAY IN UNION DISTRICTS."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of to-day's date I see a letter under the above heading signed "Medicus." It appears from the letter that the writer thinks a "strike" of the medical officers in a county would achieve the object of increasing the remuneration, and would also be worthy of the profession. Supposing, for the sake of argument, that the medical officers of a county "struck" work for more pay. What would be the result? The unions would advertise for medical practitioners to take the place of those who had failed to do the work they had contracted for. If the appointments were not filled I believe there are numbers of practitioners who would give up their work and place themselves at the disposal of these unions for the time being. We are taught from the commencement of our professional education that the duty of every medical practitioner is to relieve suffering wherever and whenever possible, without any thought of remuneration. This being a primary rule, I am glad to feel certain that a strike would absolutely fail. I think that the only possible way in which the rewards of medical practitioners can be raised is by combination. A strong organisation representing the whole medical profession could regulate the number of candidates applying for registration as medical students, and could insure all qualified medical practitioners, having a creditable knowledge of their work, not only at the commencement of their career, but at all periods of it. Such a body could approach Parliament on all matters of interest to the medical profession, both as to subjects bearing on the wellbeing of the community at large and those referring solely to the internal administration of the profession. I hope some day this matter will be taken up seriously by the profession; but until then we must accept all the kicks and slights which a generous public so frequently gives to those who are unable to protect themselves.

I am, Sirs, yours faithfully,

GRIFFITH CHARLES WILKIN.

Weymouth-street, W., April 28th, 1894.

THE SODEN FUND.

To the Editors of THE LANCET.

SIRS,—At the same time that I acknowledge the following subscriptions through your columns, will you kindly allow me to correct two errors which occurred in my last communication in connexion with the above fund? "E. May" should read *Some members of the Pentonville Medical Book Society per E. May*, and "P. Skeeley" should be *P. Sheehy*.

H. Taylor	£1	1	0	J. Phillips	£0	10	6
J. Alcock	1	1	0	J. P. Way	0	5	0
H. Cayley	1	0	0	T. Maybury	0	5	0

I am, Sirs, yours faithfully,

Northampton-terrace, Swansea, May 2nd, 1894. W. F. BROOK.

ERRATUM.—Under the heading "Movements of the Medical Staff," on page 1095 of our last issue, *Surgeon-Colonel Hamilton* was by a typographical error described as "Surgeon-Captain Hamilton."

COMMUNICATIONS not noticed in our present issue shall receive attention in our next.

During the week marked copies of the following newspapers have been received:—*Swindon Advertiser, Madras Weekly Mail, Birmingham Argus, Huddersfield Chronicle, Oxford Chronicle, Sussex Daily News, Hampshire Telegraph, Halifax Mercury, Southampton Echo, Goole Times, Bury Advertiser, Hawick Express, Nottingham Daily Guardian, The Cork Constitution, Kent Times, South Durham Mercury, Worcester Journal, Norfolk Weekly Standard, Derby Mercury, Temperance Record, Liverpool Mercury, News, Harrogate Herald, Cornwall Gazette, Llangollen Advertiser, Times of India, Pioneer Mail, Science Siftings, Guy's Hospital Gazette, Christian News, Hull Daily Mail, Australian Medical Journal, Roscommon Herald, Swansea Herald, Lurgan Times, Kildare Observer, Le Temps (Paris), Manchester City News, Manchester Guardian, Dundee Courier, Citizen, &c., &c.*

Communications, Letters &c. have been received from—

A.—Mr. T. Armstrong, London; An Anæsthesia Specialist; Anæsthetist, A London; Axminster Cottage Hospital, Matron of.

B.—Mr. W. H. Battle, London; Mr. Edward Bousfield, London; Mr. F. T. Bennett, London; Mr. J. H. Burrows, London; Messrs. C. Barker & Sons, London; Messrs. J. Bale & Sons, London; Messrs. B. Bradshaw and Co., London; Messrs. Bates, Hendy and Co., London; Messrs. Benson and Co., London; J. E. Bryant Co., Ltd., Toronto; Brutus, London.

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D.—Dr. J. H. Dewhurst, Campden; Surgeon-Major G. W. P. Dennys, Delhi; Mr Wolf Defries, London; Durham County Hospital, Hon. Secretary of; Derby County Asylum, Clerk of.

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K.—Dr. R. Kirk, Glasgow; Mr. W. E. E. Kershaw, Manchester.

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N.—Mr. F. R. Nivens, London; Nottingham Borough Asylum, Clerk of; Newspaper Press Fund, London, Secretary of; Nottingham General Hospital, Secretary of.

O.—Dr. Thomas Oliver, Newcastle-on-Tyne.

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Q.—Quekett Microscopical Club, London.

R.—Mr D. W. Rowlands, Upper Cwmtwrch; R. H., London.

S.—Dr. G. A. Sutherland, London; Dr. J. Fredk. W. Silk, London; Dr. Hy. Simpson, Manchester; Mr. J. W. Stuttle, London; Mr. W. Stark, Liverpool; Mr. S. Colley Salter, Stoke-on-Trent; Messrs. F. Stearns and Co., London; Messrs. R. Summer and Co., Liverpool; Messrs. Swan Sonnenschein and Co., London; Messrs. Street Bros., London; Sanitas Co., Ltd., London, Secretary of; Scientific Press, Ltd.; Surgeon-Major.

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Y.—Dr. I. Burney Yeo, London.

Letters, each with enclosure, are also acknowledged from—

A.—Dr. A. J. Adkins, Banbury; Dr. A. E. Ash, Stoke-on-Trent; Mr. W. L. Allman, Cork; Mr. G. Armstrong, Bandon; Messrs. Atkinson & Gonder, Pontefract; Abergavenny Cottage Hospital, Hon. Treasurer of; Alpha, London; Ajax, London.

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Y.—Y. Y., London.

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